

THE MICHIGAN FARMER,

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Relating to the Farm, the Garden, and the Household.

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The Farm.

The New York State Agricultural College.

We have recently received a pamphlet containing the "charter, ordinances, and course of studies" of the New York Agricultural College. The organization and plan of such an institution possesses, as a matter of course, much interest for the readers of the FARMER, and we have examined with great attention the programme which has been laid down as well as the system of organization which has been adopted. There is much in both, from which our own citizens can learn something. Their system of organization is good, but the programme of students, is like all those published in connection with the organization of agricultural schools, and of course will probably be pruned and excised, whenever the school gets into operation, if practical men take hold of the matter, and are unwilling to have such an institution of learning be under the imputation of being a thing of mere false pretences.

The act incorporating the New York Agricultural College was passed in 1853, and provided for the formation of a corporation in the usual manner, under the general statute for the incorporation of schools and academies. It provided also that the farm and grounds should not be less than three hundred acres. The plan of instruction was to embrace the following branches of knowledge: "Practical and scientific agriculture, chemistry and its manipulations, so far as may be usefully connected with agriculture; mathematics and mechanics; surveying and engineering, geology and botany; the practical management of the farm, of the dairy, of the various kinds of live stock, and also such other branches of knowledge as may be deemed useful and proper."

In 1857 an amendment act was passed, authorizing the increasing of the number of Trustees from ten to twenty-four; as it was probably found that the responsibilities incident to the successful prosecution of the college occupied more time than could be shared by any two or three persons, themselves imperfectly acquainted with the necessities

constantly arising as the experiment was pushed into operation.

In the same year an act was passed providing for the loan by the State of forty thousand dollars to the institution, for the time of twenty-one years, without interest, on the condition that the land which had been purchased by a subscription of a like amount, should be mortgaged to the State as security for the money.

The Trustees, having made the location at Ovid, Seneca county, the citizens of which vicinity had subscribed liberally, a tract of land was secured containing altogether about seven hundred acres.

The features, however, which strike us in this record of the proceedings of the New York Agricultural College is the practical manner in which the Trustees have undertaken the business, and subdivided and attended to the labor. In the first place there is now a board of seventeen trustees. These trustees include a number of the citizens of the state, distinguished for their practical acquaintance, not only with agriculture in all its branches, but also with the interests which are most to be promoted by such an institution; amongst them we find the names of WILLIAM KELLEY of Rhinebeck, ex-president of the State Agricultural Society, and one of the best breeders of stock and extensive farmers on the Hudson River; of HENRY WAGER, likewise a distinguished agriculturist; of B. P. JOHNSON of Albany, the well-known and experienced Secretary of the State Agricultural Society; of E. P. PRENTICE of Albany, whose long experience with Shorthorns and Ayrshires has made him known everywhere among breeders; of GEORGE CHEEVER of Saratoga, a practical farmer of the highest order; of ALEXANDER THOMPSON of Aurora, an agriculturist and a man of rare horticultural taste, and experience; of M. R. PATRICK, whose practical mechanical ac-

quirements have long been used to give order and design to the annual State exhibitions, and which have made him necessary in the presidency of the college, to which he has been lately appointed; of JAMES O. SHELTON of Geneva, whose experience in all that relates to agriculture is well known.—There are many others among the seventeen, more prominent as public men, and equally well known as citizens interested in agricultural pursuits, but those we have cited are well known as prominent agriculturists in other states as well as in their own. It will thus be seen that the management, conduct and control of the New York Institution is placed in the hands of parties who are not only interested in its success, but whose experience and acquaintance with agriculture, render them competent trustees, and able to suggest, to plan and to execute whatever designs may be adopted to render the institution efficient for the purposes for which it is to be used.

The organization of the trustees, and the division of their labors is another important subject which must not be overlooked. Besides the Chairman, Secretary and Treasurer, there is an executive committee of five members, to which is committed the duties of attending to the general business of the institution at all times, a finance committee of three of its members, who control its income and the payments; a building committee which takes charge of all erections, and a farm committee, who are present to aid, counsel and advise, with the president and faculty, in relation to the whole management of the landed estate and its improvement. How simple yet how efficient is all this arrangement! and how satisfactory it must be to the farmers of New York to be aware that the control of such an institution is not taken out of their hands, and put into those of lawyers, ministers, doctors or other parties who have neither experience, knowledge, judgment, nor time to attend to the interests involved. We notice that this organization has had the effect of creating confidence amongst the very class of citizens for whose benefit the college has been instituted. The whole agricultural class is not ignored in its management, they are fully represented by some of the most prominent of their number; they do not feel that their sons are to be taught

practical or scientific agriculture at an institution in whose management, only professional men are permitted to have control. The farmers as a class are not tabooed, and in return they do not look upon the thing as a mere political hobby, in which they have no interests, and no concern. The Trustees of the New York State College, being themselves practical men, have adopted common sense means to attain the end at which they aim. They have not had before their eyes, any idea of astonishing the farmers by a display of mere clap-trap. They have sought for the experience they needed amongst themselves, and they have selected and used the best material they could find, taking care that that material was fitted for the purposes for which it was needed. Thus it will be seen that their building committee was formed so as to be in constant and steady relation with the architect and with the executive board, hence their buildings have been so far well built.—Their farm committee was at all times on hand to give the interests involved in the improvement of the estate, the whole benefit of their advice and experience, to provide for the daily wants which must be constantly accruing, and to see that the seasons were not lost, because means were not on hand to provide the stock, the implements, the seeds or other articles, which are necessities, and without which a farm can be no more carried on successfully than a steam engine without a supply of fuel. Hence the farm operations have been well considered, before being adopted, and once adopted they have been carried out with order and economy.

The programme of studies, and the proposed treatment of the students in the educational department, we shall leave for another chapter, which we hope to make as interesting as the organization.

Live Stock in Western Washtenaw.

Our readers will recollect that in the FARMER of September 24th, we not only published the pedigrees of a number of Shorthorn stock brought into the vicinity of Dexter, but also gave the history of the purchase and the names of the purchasers, stating at the same time the quality of the stock and its descent. We thought it probable that this stock would have been shown at the State Fair, but the long journey from Central Ohio, and the late period at which the animals arrived, prevented their appearance; hence we did not see them. Last week, however, we took the occasion of having some business near Dexter, to pay the owner of this stock a visit and to examine it.

The first herd we visited was that of S. W. Dexter. The Ohio stock in this herd consisted of four, but the bull calf, Young America, died a few weeks since, and it now contains only Victoria, Victoria 2d and Florence.

Old Victoria is a light roan cow, now ten years old, bred in England, and imported in 1853. She is a first class animal, and the examining committee so pronounced her when they awarded her the first premium at the late State Fair. She is not only good in all her points, but is most excellent as a handler; whilst her progeny, of some of which we shall have occasion to speak, is alone evidence enough of her quality.

Victoria 2d is out of the imported cow Victoria, and was sired by imported Marquis. She is red and white in color; but hardly so very fine in all points as her dam. She is in calf to imported Starlight.

Florence is a roan heifer, of an entirely different family from either of the above, being out of the imported cow Stapleton Lass, and by Rocket, an imported bull. She is a yearling, being but 13 months old; but is promising in all her points to make a most excellent cow.

The bull Economy, which Mr. Jones has bought from Mr. Rotch, of Otsego, N. Y., is also thirteen months of age. He has been set back some by a fit of sickness, but is now fast recovering. He has the fine bright red color of the Grand Duke family, from which he is descended on the side of his dam. He has also the points about him of a first class animal, though at present his condition is far from being first rate. Those

who feel curious about a good pedigree should look at his on page 306 of the FARMER.

Amongst the stock on this farm, we saw a number of grades from old Guelph. All these animals were remarkable for their early maturity and quick fattening qualities. A pair of steers was in one of the yards, two years old past, and valued at \$88, and we believe sold at that price to be taken to New York. There is not a heifer or steer, in which there is a trace of Guelph blood, that does not exhibit superior qualities and good form as a fattening beast. The blood of this bull should be preserved, and we think that a cross even upon such cows as Victoria and Victoria 2d, would not by any means depreciate the value of their calves.

Sirloin, we see, remains in these stables yet, and also a fine son of his, out of Fanny, by Guelph. Sirloin, we believe, is for sale. He is a grand bull for the quality of his stock, and for their early and rapid growth. All his calves that we have seen prove his value. His son, Bellville, is a grandson of Guelph, and ought to be a first class animal. The union of the blood of two such animals for size, quality and early maturity, should ensure a stockgetter of more than ordinary value, and we hope he may fall into hands that will retain him in this State. This calf is now but six months old. Another bull calf of the same age is Fortune, a handsome red roan; this calf differs from Bellville by being six weeks older, and having a cross of Archer's blood, his grandam being by that well known bull of Mr. Rotch, No. 10 of the American Herd Book.

The next visit we made was to the yards of the Messrs. Arnold, where we were most agreeably surprised by the examination of the two year old bull Western. He has a beauty and a value about which there can be no mistake. In fact he is about as handsome an animal, of his age as can be found, and is alone worth a trip to see. The more he is examined and looked at, the better he is liked. Such a picture, when he is left to stand alone, and remains still, with his head up, is not seen every day in Michigan. In the first place, the color of this bull is most striking; he is called roan, but the white is so clear, and the dark reddish brown is so well marked, and of so deep a tinge, that the word "roan" does not correctly express his true colors. We saw his sire, Starlight, at the Ohio State Fair when held at Sandusky, and considered him then the most stylish bull we had ever seen. Western possesses a very great likeness to him. His head is almost perfection, broad, in front, clean under chops, tapering down to a yellow muzzle, so clean and fine that it would not seem out of place to have him drink out of a silver cup; his eyes clear, large, full and mild, and his horns and ears, as fine as his muzzle. His head is well set on a neck as fine, as well proportioned, and as elegant as that of a blood horse, with just enough of crest to round it off from the shoulder to the head, without rendering it heavy, or disproportioned. The shoulder is broad, and the chest wide and deep. The crops and ribs behind the shoulder were full and well rounded out, the back long, straight to the tail, and the barrel handsomely rounded and slightly tapering from the girth to the flank. The hind quarters square, full, and remarkably well shaped both over the back, and across the buttocks. The gambrels flat and full, and the legs clean in bone, and fine in shape, and well proportioned. Western will not be three years old till next March, but though not in fair keeping condition, he will weigh at the present time full 1,800 pounds, and he can look over a six feet fence with all ease. His handling quality is of the first rate order, and his skin as loose on him as though he was a calf. He must prove a most valuable acquisition to the Shorthorn stock of this State. This bull is a calf of the imported cow Victoria, which we have noticed above as the property of S. W. Dexter, and which was selected by Mr. L. H. Jones, as a dam that was fit to be the progenitor of a herd.

The heifer calf, Bright Eyes, is roan of remarkable promise, a full sister to Western. For thriftiness, size, fineness of head, and in fact of all other points, and for quality, this

calf is likewise most creditable to the dam, and to her owner.

Here, also, we find a number of grades both heifers and steers, the progeny of Guelph, which are as readily to be picked out as though they were a different race from the more common stock.

Mr. Henry Warner, whose purchase of Gipsy from the herd of Mr. Crippen, we noticed about two years ago, has since increased his stock of Shorthorns by the addition of two heifers from the herd of James Fullington of Milford Centre, Ohio; one of these heifers has had a calf to imported Starlight, and both are again in calf to the same bull. These heifers are each of the highest value as being of the first quality to lay the foundation of a herd, and as being both in pedigree and quality unexceptionable. The oldest heifer is Strawberry 2d, roan in color, and now three years old. She is from a cow called Strawberry that was imported in 1853, and her sire was imported Marquis. When bought, this heifer was considered the choice animal of the herd from which she was selected.—She has all the best qualities of the improved Shorthorn well bred in, and in quality is not to be excelled. As she is of a different family, she will cross well with Western, and we expect to find her family making quite an improvement in this section of the State.

Strawberry 3d is also a heifer from imported Strawberry, but sired by imported Starlight. She is only as yet a year and a half old, but is in calf to Starlight also. This is pretty close breeding, but we think, with care in not running the in and in principle any farther, but selecting the stock to breed from, this concentration of the Starlight blood, which has evidently great constitution, may prove a success.

Mr. Warner has Gipsy, also, which is in calf to Sirloin, and also the yearling heifer of which we spoke a year ago, as a calf from Orpheus. The heifer is turning out well, and from the loin forward is almost perfect, with all the excellent quality of the sire in the hide and hair; she drops a little on the rump, and is not as well filled out there as she promised to be a year ago, but a cross on Western will probably bring her calves up to the standard in this point. Her head, shoulders, and general form, as well as her quality, are unexceptionable, and the cross of Orpheus blood with that of Starlight and Western must prove to be good, if there is any fact in the axiom that "like begets like."

Here also we found a two year old white grade heifer sired by Guelph, which had just been sold to Heath, the drover, for \$55.—This price is a fair measure of the difference between a well bred animal and the common stock of the country, of which numbers of two year old heifers can be purchased for prices ranging from \$15 to \$20 per head, the owners considering them well sold at that rate.

Our readers will note that there is at the present time in and near Dexter, the foundation laid for herds of Shorthorns of such a quality, and to such an extent as has not yet been equalled in this State. All these animals of which we have spoken have not been procured without a large investment of capital and a considerable expenditure of time and labor in their selection and importation. It will be seen also that they bring into this State, especially as females, such blood as has not yet been introduced. The Victoria cow brings with her a pedigree that traces back to the very best animals that were used by the best breeders to improve the Shorthorns in England. Acmon, Young Rockingham, and Denton are names well known to every English and American breeder of reputation.

The Florence heifer brings in another family, but fully equal in all its branches to that of Victoria. The Strawberry family brings in the blood of Wiseman, an English bull of the highest standing as a stockgetter, with a faultless "Maiden" descent on the female side. Again we have the Duke of Gloster blood, through Gipsy's heifer from Orpheus, and the Grand Duke blood, with a cross from that most celebrated of English bulls, the Duke of Northumberland, in Economy. Add to this that there is also a fine home bred stock from Guelph and Sirloin to breed from, and what breeder, acquainted with the improved Shorthorn tribe of cattle, will not admit that in this part of Michigan, preparations are being made to try what the first class of Shorthorns will do? After an examination of these animals, we are at length prepared to withdraw our complaint, that there has been hitherto a deficiency in the quality of the females of the improved Shorthorn breed.

Advice to the Editor.

Mr. JOHNSON, I want to talk to you a little while about some points in regard to your paper, and to give you some advice which will may-be have some effect on the popularity of the FARMER, especially in our neighborhood; that is, if you see fit to hear to what I have to say. I don't hardly know how to get at what I want to say now, and perhaps I can't do it better than by repeating the remarks made by neighbor Smith the other day when I asked him to subscribe with me for next year:

"Why, neighbor Blades," says he, "that ain't the sort of paper we want here. It ain't suited to our way of farming at all. Now you know I've had the reading of yours all summer, and I can't see that I'm a bit better off than if I hadn't seen it. The fact is the editor don't understand our ways, and he writes about things that we don't know nothing of. My pigs and cattle ain't one bit better, nor my crops neither, for all the reading I've had out of the FARMER the past six months. I've been taking the New York Ledger now for two years, and my boys and girls won't give that up for any farming paper. I get more knowledge than I can use on my hundred acres, out of the agricultural column of our county paper every week, and as for the MICHIGAN FARMER, all I've got to say is, there is too much high farming in it; it is going ahead too fast for the times and common folks like us won't have any use for it for fifty years, at least."

That is the sum and substance of Smith's remarks to me, Mr. Editor; and, as high as I can find out, our whole neighborhood are pretty much in the same way of thinking. You are all the time praising up high farming, and relating experiments that common farmers like us would never think of trying. That is the great reason your paper is not popular here. You don't somehow seem to get hold of us, or to have an idea of what sort of a paper would suit us. And another thing; when you are traveling about the State and writing of what you see, it is always among the brag farmers that you go, and about their great crops and their fine stock that you write. Ordinary folks like us don't even get winked at. Perhaps you will say we are doing nothing worth winking at. That may be, according to the thinking of the great cattle and horse men, but we have our own opinions of ourselves, and would like to be acknowledged as part of the world as much as anybody. Now I know of three of your papers that are taken within six miles of me, and in that six miles there is a pretty good sprinkling of farmers, such as they are, but not one of them has got what you call an improved hog, or horse, or critter, but me; and I've got a grade Short-horned Durham bull calf that is a beauty, and that I would like to have you see; but what I was going to say is, that if your paper was of the right sort, and could come down to us as we are, you might just as well have a dozen subscribers here as three. For my own part I like it well enough, in the main, and now that I am going into blooded stock, I shall appreciate it better than ever. But my advice is for you to visit the rural districts more, and see how people live and what they are doing, and then you will know what to write about to suit them and make your paper popular. It is true you will not find any great improvements here to tell of; we are all home sort of folks, and haven't got into the way of building costly barns and using new-fangled implements; the cattle are all natives, except my calf, and the people too, pretty much, for that matter; and we don't pretend to set ourselves up to enlighten the world. But when you come out here you will see what kind of a paper we want. As Smith says, we want something that we can understand, and unless you come down to us we shall disrepute the FARMER altogether, and send east for our literature.

Yours, in respect,

TIMOTHY BLADES.

Blackberry Corners, Dec., 1889.
P. S.—As soon as I can get my calf's pedigree made out correct, I shall send it for publication in the FARMER. There seems to be a little difficulty on the dam's side. She is a native, and its hard finding out her ancestors. There won't be much trouble about the sire, I think; though it does seem to me that he's a mighty long-horned brute to have the name of short horn. Any way, come and see me and the calf.

When you come out, inquire for Uncle Tim. That's what I'm called.

[While we are very grateful for the above advice, we are sorry that we have not been able to suit the capacity of the farmers around Blackberry Corners, and assure "Uncle Tim" that we shall try to get a sight at the rural district, including himself, Mr. Smith and that calf, during the coming season.—Ed.]

Agricultural Education.

BY PROF. JOHN A. PORTER OF YALE COLLEGE.

The cultivation of the soil is the great occupation of the American people. Our agriculture employs more labor and more capital than all other departments of industry combined. Under these circumstances it is a remarkable, and at first sight an unaccountable fact, that there is among us an almost total deficiency of agricultural education. Our condition in this respect presents a contrast to that of other countries, which have reached the same grade of civilization as ourselves. France has its agricultural school in every department, Germany in almost every province, and England a source of the most enlightened practice in the careful study which every large land holder gives to the cultivation of the soil. Our own country, with all its enterprise in practical art, and its pre-eminence in general education, is, in this respect of agricultural science, behind them all.

It would seem, at first sight, that such a state of things must have its origin either in the lack of knowledge to be communicated on agricultural subjects, or in its already accomplished diffusion, or in some especial difficulties incidental to the dissemination of such knowledge among those engaged in agricultural pursuits.

In view of the obvious relations of the natural sciences to agriculture, and the rapid strides which they have made in advance during the last score of years, the first of these suppositions is extremely improbable. It can hardly be that accumulations of knowledge have not been realized in Chemistry, Geology, and Vegetable and Animal Physiology, of the most important bearing on the culture of the soil. So obviously must this be the fact in the case of chemical science, that the mind can scarcely fail to be satisfied of the truth without descending to those particulars which are at hand, for complete demonstration. Agriculture is, in fact, chemistry on a large scale—the transformation of earth, and air, and water, into bread, and meat, and the material of clothing; and it is scarcely possible that the results of the careful study of the laws of transformation on a small scale, which has been made in our laboratories, will not throw some light on the chemical work on a large scale, which is taking place in the great laboratory of the soil.

It is certain that they have already done so, and that there are principles of chemical science already established, which, if universally diffused and applied, would suffice to increase, in an immense degree, the agricultural wealth of the world. As far, then, as the natural sciences are concerned, in their relation to agriculture, it may be confidently asserted that the deficiency of instruction among us is not a consequence of lack of knowledge to be communicated.

Neither is this the case with those special sciences which have grown up within the field of agriculture itself, as a direct consequence of its practices and its necessities. On the principles involved in the breeding and rearing of animals, in the propagation of plants, in the production and perpetuation of varieties, on the diseases of plants and animals, on manuring and drainage, and irrigation, there are vast stores of information which await the more thorough and systematic diffusion which the press, with all its power and efficiency, has not as yet accomplished.

And so, with reference to the care of crops and the feeding of animals; the management of the dairy and a thousand other details of the farm practice which have not as yet taken the form of science, there is an amount of knowledge existent in the minds of the best cultivators, the dissemination of which would be of immense value to the country.

It is not, then, for lack of existent knowledge, either of science applied to agriculture or of special agricultural science, or of superiority on the part of individuals in the details of farming, that there is nothing like a system of agricultural education among us.

The second supposition of an already accomplished diffusion of the knowledge which exists on these subjects, it is scarcely worth while to consider. Once fertile farms all over our State are becoming deserts for the want of the simplest applications to the soil. Orchards in every part of the country waste the precious juices of the earth in the production of worthless fruit, for lack of the grafting which would convert the same material of nature into the most luscious varieties. Valueless breeds of animals are everywhere perpetuated, when those of double the value could be propagated at the same cost, and adorn every landscape by their symmetry and beauty. Stunted cattle crop a scanty sustenance of thistles and weeds from pastures which might teem with nutritious grasses at no greater cost to the soil or

its owner. Our barn-yards fairly shiver with the misery of poor dumb beasts who, in seeming luxury of cruelty, are tortured every winter by exposure to the rigors of our climate, at an expense of food greater than would be required to house them in comfort. So long as this is the condition of our agriculture, notwithstanding the immense improvement which has been realized, both in farming and stock-raising, within the past few years, it can hardly be maintained that our lack of systematic agricultural education finds its pleasant explanation in the general enlightenment of those engaged in agricultural pursuits.

Neither is this deficiency a consequence of any especial difficulty inherent in the diffusion of knowledge among this class of our people. Wherever the common school exists, a dissemination of the elements of agricultural science might readily be accomplished, and higher institutions of learning would stand ready to complete the education thus commenced, in proportion to the demand upon them for such instruction.

An explanation of the destitution of agricultural education among us, is rather to be sought in the history of our agriculture itself, than in any of the directions which have been above indicated. It is to be found in the position which we have occupied as the occupants of a country comparatively new, rather than in any lack of importance of such education, or any difficulty in its accomplishment. Our fathers found it more profitable to bring new lands under cultivation than to maintain the fertility of the old. This course is still most profitable on the cheap and fertile soils of the West, and the process of exhaustion is there in full tide of operation. Agriculture, under these circumstances, is an extremely simple process, consisting in little more than a transfer from field to market of the accumulated treasures of the soil. It needs as little help of science as the excavation of a guano island, or the plunder of an oyster bed. Our virgin soils are practically great grain deposits, bearing an analogy by no means remote to the coal-measures of an earlier geologic period. As long as such deposits exist, to be mined for wheat and corn, it is not strange that little occasion is felt for agricultural science. These accumulated treasures of the soil are the reward of the explorer. They are the prizes which nature offers to the hardy pioneer, who, with axe in hand, and plow to follow, goes forth to battle with hardship, and subdue the wilderness. The older States of our country are long past this period. The accumulated stores of nature being exhausted, agriculture has come to sustain, with them, a much nearer analogy to a process of manufacture than one of mere excavation. And it is a process in which it is quite as essential that the raw material shall be adequately supplied, as in the production of broadcloths or calicoes. Wheat and beef cannot be made out of air alone, and he who would produce them must furnish to the great manufacturing establishment of the soil the proper materials for conversion. Our agriculture is palsied by the failure to perceive this truth. We persist in the absurd conviction that our worn-out New England soil is an amiable mother, who only wants the flattery of occasional tickling with the plow and harrow, to induce her to make crops for us out of nothing, or at least to make for us large crops out of small materials.

The fact is, however, indisputable, notwithstanding our blindness, that agricultural production is reduced with us to a simple process of manufacture, in which we get back in a modified form just what we contribute to the soil. And this is the normal condition of agriculture all over the world—the condition at which it must everywhere finally arrive, when there are no more new lands to be exhausted. It is a condition of perpetual circulation, and not of continuous flow in one direction. The soil is the ocean, the crop is the rising cloud and vapor, the products of animal and vegetable decay are the rivers emptying again into the sea. So long as the rivers run back to their original source, their waters may rise again to commence a new circulation. If this return ceases, the sea itself must in time run dry.

The product of the earth is, within certain limits, in direct proportion to the raw material which is furnished it. The machine has not been over-taxed; its unexerted powers, on the contrary are vastly greater than those it has been called on to employ. It stands ready to do fourfold its accustomed work, if the raw material is only supplied. But instead of furnishing it with the material for conversion, we prefer for the most part to let the machine use itself up in the production of a few crops, and there end its capacity, while we pass on to new acres and repeat the barbarous process of grinding up God's food-making machine into bread.

It is a plain rule of economy in all other production, instead of allowing machinery to rattle itself to ruin by running empty, to work it, on the other hand, to its full capacity, and to obtain from it the largest possible product. In a country which has reached the stage of development which ours has, and where the soil has become so expensive, it is the plain dictate of economy to proceed according to the same principle.

But for this high farming, all of the helps of science are required. Science may aid to some extent in the crop-mining of a new country—in the crop-making of an old country it is indispensable. We need it, to cite a few instances in addition to those which have already been suggested, in drainage, in irrigation, in the use of the fertilizing materials with which nature has supplied us, and in the reclamation of waste lands. Our muck swamps are basins which God set long ago among our mountains to catch the wasting fertility of their declivities and preserve them for the use of later generations. Science must tell us how to unfold these vestments and re-array our hills in beauty and fertility.

Our salt marshes are great water-logged prairies, whose arteries need but to be throttled with dykes and humored by tide-gates to convert them into the most fertile soils of the world. Science must tell us how this result is best to be accomplished.

Our mountain streams hurry away to the sea, bearing with them a priceless freight of fertility which they have extracted from the crystalline masses of our primitive rocks. Science must teach us how they shall best be distributed over the land and woven into tender and nutritious grasses, instead of pouring themselves into the ocean, and ministering to the growth of the fuci and algae of a marine vegetation.

Our wide sand plains, with oaks growing on them and flaunting in our faces the evidence of their capacity to sustain vegetable life, are constant reminders of a gross ignorance which stands in need of that simple help from science, which shall inform us what grasses will be the readiest to lift their spears there, in a warfare with the desert, or what other plants will serve as the pioneers of a successful vegetation. And we need science not alone here in the original subjugation of unproductive soils, but at every step of their future cultivation. For in a comparatively thickly settled country like our own, agriculture must consist every year more and more in the stock raising, and dairy farming, and market gardening, and fruit growing, which is to supply large towns with the material of their consumption. It must run every year more and more into the refinements of horticulture, with its hot beds and its forcing houses, its various devices of propagation and multiplication, and its manifold appliances, for promoting healthy growth and controlling disease.

But there is little question among intelligent men as to the need. A more difficult question is how the want of a generally diffused knowledge is to be supplied. The press does much, but by no means all that is required. The contact of man with man, and of mind with mind, is necessary to inspire the enthusiasm which is essential to a rapid progress.

The introduction of books on elementary science into our common schools would be a great step in advance, but here again there would be the absence of that contact of the man of knowledge with the men who need it, which is essential to the highest success.

Shall we wait for the establishment by government of great agricultural institutions, similar to those of continental Europe? Such institutions are among the most obvious and essential wants of our time, but a public and general opinion of their utility and necessity must be created, before either our State or national governments will seriously consider their establishment. Shall we await the results of private enterprise or benevolence in the creation of agricultural institutions with their model farms and apparatus of instruction, and their corps of professors, exclusively devoted to the business of instruction? For these also we should have long to wait, not so much because of the want of liberality among those who have the means to endow such institutions, as for the lack of clear conviction as yet of their utility, and the really practical character of the information they would supply.

Cashmere Goats.

A company was organized in Logans county, several years ago, to purchase cashmere goats. An importation was made, and now the company have made a disposition of some of the increase. Mr. G. W. Ogden, of Fayette, recently purchased a few pairs, for which he paid as high as \$1,000 a head for pure bloods. Such is the demand for these animals at present, that the company received an order for fifty males from one gentleman in Texas, and have more orders now than it can possibly fill.—Ohio Farmer.

Economy of Steamed Food for Cattle.

EDITOR FARMER:—I have seen much lately on saving fodder, and asking for information. Experience has long since taught me the importance of cooking food for cattle. Two or three years ago I tried an experiment with fattening cattle. I weighed three cows, and then fed them for twenty-one days, one quart of fine meal made into porridge and poured boiling hot on their hay in a tight box. This was given to them warm twice a day. The result of this feeding was that the two quarts of meal per day cooked, produced about double the amount of flesh that four quarts of dry meal did.

I have kept a milk dairy most of the time for ten or twelve years, and have generally cooked feed of roots, meal, &c., in a sixty-gallon kettle set in an arch in a small building about seventy-five feet from the barn, but have always found it a great deal of work to carry so much food back and forth. This fall I covered my kettle with a board cover, put gas pipe from the kettle to the barn, laid the pipe in a box made of fence boards, filled the box with sawdust and put it about two feet under ground. Then I made a tight box in my barn that will hold enough to feed all my cattle and horses. I put the pipe into this box near the bottom, letting it run the whole length, and drilled a few small holes through it so as to distribute the steam equally through the box. I cut my hay, straw, roots, pumpkins, &c., the former with a straw cutter, and the latter with a spade or shovel on the floor, and sprinkle over what bran or meal I wish to feed, and then shovel all into the box, and let them steam together. I have had this in operation about six weeks, and am well pleased with it. I have not yet tried any experiments, and can only speak from general impressions, but think it a saving of work and fodder. It cost me to fit it up, from fifteen to twenty dollars.

I am keeping thirty-six head of cattle, and three horses. They are all kept in a warm, convenient stable. They are about two-thirds cows, giving milk and fattening cattle; the balance young cattle. We feed them steamed food twice a day, warm from the box, and a little dry hay or straw night and morning, and give them a good bed of leaves to sleep on. They are quiet and apparently happy, and look well.

Horse or water power to cut feed might be a saving of time, but we have not got it, and do not find it very hard work to cut it by hand. One man cuts and prepares the feed, lets out the cattle to water, cleans the stables, puts up the cattle and feeds and carries them all off every day, and that occupies about one-half of each day.

I have not tried steam on sound, hard corn. My corn was hurt badly with the frost, and was cut up immediately. It was not fit to grind. We have steamed that and fed it with good success, both to fattening hogs and cattle. We also find that cutting oats in the bundle, and steaming them for horses is a very economical way of feeding.

If time and circumstances permit, I hope to be able to make some experiments in feeding cooked food and dry food, and if I do I will let you know the result.

M. HEYDENBURK.

Kalamazoo, Dec. 8, 1889.

HOME NOTES.

Profitable Farming.

Mr. Asa Chesley raised and harvested, the present season, from five acres of land on his farm in the town of Rome, in this county, five hundred and eighty-six bushels and sixteen pounds of shelled corn. The net profits of the crop were \$225.75.—Adrian Watchtower, Dec. 1.

Corn.

Erastus Tracy of this township raised nine hundred bushels of corn upon twelve acres of land, the past season. If there is another twelve acres of land in St. Joseph county, which has done as well this year, we should like to hear of it.—Constantine Mercury.

A large yield of Corn.

Mr. Daniel Warring of this town, measured off one acre from his field of corn the present season, and found it to have yielded one hundred and sixty-eight bushels of ears of corn. Notwithstanding the backward and unfavorable season, accompanied with frosts every month, the average yield of corn exceeds that known in this section for many years.—Peemuck Herald.

Mule Sales.

Mr. Isaac S. Irvine, of Madison, Ky., sold a few days ago to McCormick & Lackey, of Garrard, 56 sucking mule colts, at \$82.80 per head, and 42 yearling mules to Arnold & Turner, of Madison, and also sold to Mr. Waller Rodes, of Fayette, 180 yearling mules, at \$120 per head; Mr. Frank Massie, of Bourbon, sold to Joseph Redman, of the same county, 29 yearlings, (second rate), at \$77.50 per head.—Ohio Farmer.

Our Surplus Fruits: Where Will They Find a Market?

In the early settlement of our State many persons whose tastes would have led them into the cultivation of fruit on an extensive scale, with a view to the market, were deterred by the reflection that others, also, would plant a sufficiency for their own purposes, and that, probably, before they could get their orchards fully into bearing, fruit would become a drug in the market from over-supply. Indeed, so general has been this feeling, that, within the last four or five years, the writer has frequently heard the query,—What do you expect to do with all your fruit, when your orchards are once in bearing? More recently, however, the fears of such querists seem to have been set at rest.

The opening of western railroads, and the rapid settlement of the great Mississippi valley, have made Chicago a great distributing point, easily accessible from all parts of our State, and where our fruits seldom fail to find a ready and profitable market. Heretofore the permanency of this demand may have, properly, been considered a matter of doubt, from the apprehension that the more contiguous regions of Indiana, Illinois, Wisconsin and Iowa would soon produce an adequate supply; but the experience of the last few years seems to have established the fact, that we have comparatively little to fear in this direction; while the restless avalanche of settlers, so rapidly inundating our western prairies, furnishes a sufficient answer to the query at the head of this article.

In addition to the western demand, an extensive market for our surplus fruits is rapidly growing up in the mining regions of our Upper Peninsula,—a region which, from our contiguous location, no less than from intimate political association, will naturally look to us for a supply.

With even these demands upon our productive powers, it is believed that we may continue to plant with no fears of an over supply: but, from the natural laws of trade, another channel has more recently been thrown open, which, apparently, offers to the fruit dealer a broad and promising, although yet untried field. I allude to the direct trade between the lake ports and Europe. In England, if we except the fruit grown upon the walls and espaliers of the rich, very few apples or pears are grown, beyond a few varieties solely adapted to cooking. P. Barry, of Rochester, N. Y., while on a visit to Europe, in writing to the *Genesee Farmer*, under date of Dec. 14th, 1848, remarks as follows:—"Many of the apples I see here cried up as 'nice American apples,' 'beautiful American apples,' &c., would scarcely sell at all in our market, yet they are sold here at three to six cents each."

"The English people have fairly given up raising apples for market, unless it be Codlins, &c., that come in early for cooking, and Beaufins, &c., for drying. They see it will be impossible for them to compete with American orchardists. Yesterday I examined two or three hundred varieties, in the fruit rooms of the London Horticultural Society, and among them all there was not a single large clear colored, fine looking specimen. One would suppose, at first sight, that they were all windfalls, gathered from under the trees last August. The Roxbury Russet, Fall Pippin, and Rhode Island Greening, were among the best specimens, and they were not half the size we grow them. The most esteemed varieties pointed out to me by Mr. Thompson, such as Pearson's Plate, Warmley Pippin, Pomme Royal, (not our Pomme Royal,) Golden Harvey, Stunner Pippin, &c., are small, inferior looking things,—in size from that of a small Pomme Gris to that of a Siberian Crab,—but they are generally harder and richer than ours. The Newtown Pippin and Roxbury Russet come nearer the English taste than any varieties we cultivate. I had some Northern Spy and Melon with me, that I have here now in London, in fine condition. They have elicited the admiration of all who have seen them. There are, indeed, no such apples to-day in England. The Northern Spy may be sent to Covent Garden market, just as well as to Filton or Washington markets, New York. The pears in the market here now, are from France or the Island of Jersey." * * * *

"In Covent Garden market, which is headquarters for all rare and fine garden commodities, I see fine St. Germain's, Marie Louise, Passe Colmar, Winter Nelis, Beurre Rann, Easter Beurre, &c., sold at 12½ to 18½ cents each. If we ever succeed in raising pears beyond what may be required for home

consumption, they will find a market and good prices here."

Although the above is a statement of things as they were ten years ago, the state of affairs is believed to be much the same at the present day. Heretofore, the shipment of fruits in this direction has been limited to the seaboard, on account of the great risk of injury from rehandling; while the scarcity of fruit in that region has doubtless been, to a great extent, a check upon the trade; but, with the growing up of a direct trade from our lake ports to Europe, we have now the means of shipping fruits across the Atlantic, with less risk of damage than would be involved in sending, by the ordinary route, to New York; and, probably, with but slightly increased cost; while the facility, cheapness and high degree of perfection with which fruits are produced here, as compared with any other source of European supply, will, doubtless, amply remunerate us for any additional expense of transportation.

Under this state of affairs, it is reasonable to conclude that the opening of a trade with England, in this commodity, is merely a question of supply and demand; and, consequently that our surplus will tend in that direction whenever it is thoroughly understood to present a more promising market than the West.

In the solution of this question, Detroit, as the natural commercial emporium of our State, has a direct interest. In the fruit trade, which is believed to be little, if any, beneath the wheat trade in importance; while, unlike that, it seems destined to a rapid increase; Detroit has, hitherto, done little or nothing beyond the supply of its own local wants; while the entire traffic has been, by her supineness, allowed to centre at Chicago. In the opening for the new outlet for this trade, however, Detroit would be possessed of many and manifest advantages over any other more western city; and should she fail to secure the control of it, the failure may fairly be attributed to that lack of enterprize which is, not unfrequently, charged upon her in connection with other matters.

Plymouth, December 5th, 1850.

Experience with Pears.

In the November number of the *Magazine of Horticulture*, Mr. Hovey gives his experience with pears the past season, and says:

"The past season has been a trying one, and we have not the time to review all its changes here. Frosty, cool, dry and windy, trees have in almost every month been subject to injury. The first great source of trouble was the late cold of May 16th, when the temperature fell to 32 deg., with a very heavy white frost, which undoubtedly caused the falling of the entire blossoms of some pears, and the partial loss of others. Similar late frosts our variable climate is subject to, and therefore the cultivator in exposed places will know what kinds to rely upon, by knowing such as escaped this ordeal. Such as suffered most were the Glout Morceau, Beurre Langlier, Flemish Beauty, and Sienlle. Those which went through it without any injury, were the Swan's Orange, Lodge, Bartlett, Urbaniste, Dunmore, De Solius, Merriam, Andrews, Alexandrina, Buerre Clairgeau, Buffum, Beurre Robin, Pratt, Hull, Heathcot, Beurre d'Anjou, Duchess, Lawrence, Doyenne, Bouscock, &c.

"The cold rains of May were again disastrous; what blossoms there were that set, did not set their fruit kindly, and much of it was ill-shaped and russeted, which may be referred to this or some other cause. That in most instances it was the long-continued easterly storms seems to be confirmed from the fact that the Louise Bonne, on both light and warm and stiff and heavy soils, were affected alike. Of more than 500 trees particularly examined in these different localities, more than three-quarters of the pears were more or less russeted and rough. Even the leaves of this pear were affected more than usual, and neither looked so vigorous during the summer, nor held on so long in the autumn.— Yet in our neighborhood, near our own grounds, perfectly smooth and fair, though not extra sized, pears of this variety were raised in abundance. Glout Moreceau was quite as bad or worse; our own specimens being knobby and actually cracking, which they rarely do. Flemish Beauty was much rougher than usual, and Bartlett was some spotted. Urbaniste, generally one of the smoothest pears, was considerably russeted; and we might name other varieties in the same way. That all these were generally affected, there is little doubt, for of all the pears from more than twenty-five of the principal collections exhibited in September, scarcely one lot of a dozen specimens was free from spots and blemishes, and these too selected

from the very best pears upon trees where every inferior fruit had been thinned out.—The question arises whether all this was the effect of a cold winter, a cold wet soil, the late frost, or chilly rains? But whether either one or all of these, the fact remains, that these sorts have peculiarities important to be known.

"We now note another class, that never flinched; which neither cold or hot, nor wet or dry weather seemed to harm. These were Swan's Orange, Lawrence, Alexandrina, Dunmore, Bourre Clairgeau, B. Sterckman, Lodge, Duchesa, and Sheldon. In high, dry loam, with a gravely subsoil, in black peaty earth, with a clay base, in every part of our grounds, whether exposed or sheltered, Swan's Orange was alike large, fair, beautiful and excellent in quality. The Lawrence too was perfect, though we had no bearing trees in so many different positions as the last. Bourre Clairgeau, though apparently a slightly tender tree, carried its fruit perfect through all the vicissitudes of the weather. Sheldon, though a rusty pear, was perfect in form and finely bronzed in the sun. Bourre d'Anjou was unusually good in various localities, high and low, and has established its claims to a place among the hardy, certain pears. Doyenne Boussock has proved a glorious pear; vigorous in habit and rich in foliage, its noble fruit not only set well, grew well and ripened well, but were as fair and beautiful as the Doyenne of olden times, only three times as large. Dunmore was a picture of a productive and handsome pear, with cheeks of vermillion, very large, and of a quality which has not yet been sufficiently appreciated. It is the best of Mr. Knight's seedlings, and one that any pomologist might be proud to raise. These at least—for we have no space to extend the list—can be put down as having no peculiarities worth noticing; are not fastidious as to soil, location or exposure, and therefore worthy the attention of all who wish to grow fine pears, till they learn to grow the capricious sorts.

"Now this information may be neither new nor important to know. Yet we have been twenty-five years in obtaining it; if we could have known it so long ago, it would have saved us, so far as profitable culture is concerned, many hundreds of dollars. This is the knowledge we seek. This alone and careful study will enable all to obtain these results. They show how very imperfect our knowledge really is; that we judge too hastily and reject too quickly, and often throw aside a valuable fruit because a year or two's experience is not favorable."

HORTICULTURAL NOTES.

The Delaware Grape.

This variety we note is still a subject of discussion among the grape growers. The editor of the *Gardener's Monthly* has no hesitation in pronouncing it a "*natuyev*," and adds, "If any one will take a bunch of the Delaware and confine them for a few days in a close box, and then suddenly open the cover in the vicinity of his nasal organ, it will be saluted with that peculiar odor which may be classed with the mus-cat, or *pole-cat* order, according to the peculiar taste or prejudice of the owner; but which is universally suggestive of American origin."

The Care of a Lawn.

This is neatly illustrated in a remark made by the editor of the Gardener's Monthly, who recently visited Wodeneth, the residence of Mr. Sargent, on the Hudson river. He says: "Whoever visits Wodeneth will never forget the lawn. It is kept in order by a horse mower, which goes over the whole three acres in about six hours. *It has to be gone over about every ten days.*" The machine does not work well when the grass is long.

The Concord Grape.

The editor of the Germantown (Pa.) Telegraph thus endorses the character of the Concord: "The more we know of this grape the better we like it, and this appears to be the case with nearly everybody. The exceptions are those who have long settled in their minds that the Fox grape, being a universally condemned variety, every seedling possessing any portion of its flavor, must necessarily be worthless. To us and to ninety-nine in a hundred, the Fox grape aroma is agreeable, and constitutes one of the most attractive qualities."

Cranberries.

The people of Cape Cod are making their fortunes on cranberries. They are converting their meadows into cranberry fields, and some of them have, it is said, been on a tour this fall to Virginia to examine the Great Dismal Swamp, with a view of ascertaining whether it will answer for the cranberry culture. The Barnstable Patriot says, "that the cranberry culture yields almost fabulous profit no man can deny; and it seems to be almost universally admitted that no cranberries equal in quality those of Cape Cod."

Insects--Chermes.

The currant is subject to a curl or thickening of the leaf in spring, produced by a minute insect called *chermes*. I have found that by applying air slaked lime around the bushes early in the spring, I have entirely succeeded in keeping off his pest. I have also for some years applied spent tan around the gooseberry (Houghton's seedling,) with marked effect, in staying the ravages of the gooseberry worm.—*Cor. N. E. Farmer.*

The Science of Gardening.

THE LEAVES.

(Continued from page 385.)

Seeds, as we have before stated, are still more capable of bearing great heats, and we may further illustrate this by the following statement of Professor Henslow:

"Sir John Herschel sent some seeds of an Acacia from the Cape of Good Hope, to Captain Smith, of Bedford, with directions that they should be scalded, in order to secure their germination. Captain Smith having presented the Professor with a dozen of these, he subjected them to the following experiments: Two were placed in boiling water, and left to soak for an hour, until the water had become cool; two were kept at the boiling temperature for one minute and a half; two for three minutes; two for six minutes; and one for fifteen minutes. Some of these were sown immediately, under a hand-glass, in the open border: and the rest were kept for three or four days, and then sown in a hotbed. The following are the results obtained:

Under the hand-glass,—
One, boiled for 1½ minute, failed.
One " 3 " minutes, " came up in 14 days.
One " 6 " " " " " 18 " "
One, not steeped at all, did not germinate.

In the hotbed,—
One, boiled for 1½ minute, came up in 8 days.
One " 3 " minutes, " 7 " "
One " 6 " " " " 7 " "
One " 15 " " " " 13 " "
Two, in boiling water, left to cool 9 "
Two, not steeped " 21 " "

"We cannot draw any decided inference from the single seed which was boiled for fifteen minutes having been more retarded than the rest, as it might have been a bad specimen; but it seems very clear, that the heat to which these seeds were exposed must have acted as a decided stimulus to their germination; whilst it is a very singular fact that they should not have been completely destroyed by it."

In pursuance of this subject, at the Bristol Meeting of the British Association, Mr. Hope mentioned a practice, common in some parts of Spain, of baking corn to a certain extent, by exposing it to a temperature of 150 deg., or upwards, for the purpose of destroying an insect by which it was liable to be attacked.—Dr. Richardson mentioned that the seeds sold in China for the European market were previously boiled, for the purpose of destroying their vitality, as the jealousy of that people made them anxious to prevent their exportation in a state fitted for germination. Upon sowing these seeds, he had, nevertheless, observed some few of them were still capable of vegetating.—(*Edin. New Phil. Journ.*, vol. xxi, October, 1856, p. 333.)

Though growing plants can bear an elevated temperature without injury, a very different effect is produced upon them by even a lower heat, after they have been separated from their roots. This has to be borne in mind in the drying of potherbs, which, though it is a process very simple, and very important for the winter's supply that it should be conducted correctly, is usually more neglected and more thoughtlessly practiced than any other in the varied range of the gardener's duties. To demonstrate this will only require to have pointed out how it ought to be managed. The flavor of almost every potherb arises from an essential oil which it secretes, and this being in the greatest abundance just previously to the opening of its flowers, that is the time which ought to be selected for gathering. Potherbs ought to be dried quickly; because, if left exposed to winds, much of the essential oil evaporates, and mouldiness occurring, and long continuing, destroys it altogether, for nearly every plant has its peculiar mucor (mould), the food of which is the characteristic oily secretion of the plant on which it vegetates. A dry, brisk heat is therefore desirable. The temperature should be 90 deg.; for if it exceeds this, the essential oils are apt to burst the integuments of the containing vessels, and to escape. Forty-eight hours, if the heat be kept up steadily, are sufficient to complete the process of drying. The leaves, in which alone the essential oils of potherbs reside, should then be carefully clipped with scissors, not crushed, from the stalks, and stored in tightly-corked wide-mouthed bottles. Each will thus preserve its peculiar aroma, not only through the winter, but for years, and be infinitely superior to any specimens producible in the forcing department, for these are unavoidably deficient in flavor.

Leaves have the power of absorbing moisture as well as of emitting it, which power of absorption they principally enjoy during the night. With this view M. Bonnet, of Geneva, placed a number of leaves over water, so as they floated on it, but were not immersed; some with the upper surface, and others with the under surface applied to the water. If the leaf retained its verdure the longest with the upper surface on the water, the absorbing

power of the upper surface was to be regarded as the greatest, but if it retained its verdure the longest with the under surface on the water, then the absorbing power of the under surface was to be regarded as the greatest. Some leaves were found to retain their verdure the longest when moistened by the upper surface, and some when moistened by the under surface; and some were altogether indifferent to the mode in which they were applied to the water. But the inference deducible from the whole, and deduced accordingly by Bonnet, was, that the leaves of herbs absorbed moisture chiefly by the under surface. What is the cause of the singular disparity between the absorbing surfaces of the leaf of the herb, and of the tree? The physical cause might be the existence of a greater or a smaller number of pores found in the leaves of the herb and tree respectively. The chemical cause would be the peculiar degree of affinity existing between the absorbing organs and the fluid absorbed. Duhamel seems to have been content to look to the physical cause merely, regarding the lower surface of the leaf of the tree as being endowed with the greater capacity of absorbing moisture, chiefly for the purpose of catching the ascending exhalations which must necessarily come in contact with it as they rise, but which might possibly have escaped it if absorbable only by the upper surface, owing to the increased rapidity of their ascent at an increased elevation; and regarding the upper surface of the leaf of the herb as being endowed with the greater absorbing power, owing to its low stature, and to the slow ascent of exhalations near the earth.—J., in *Cottage Gardener*.

Douglas Stock

The Doucin or Doucain stocks, as they are interchangeably called, are the layered branches of a variety of the "Pyrus Malus."

As to the nature, habits, and advantages of that stock, the tree is a distinct species of apple, is of medium size, bears small sweet fruit, and reproduces itself from seed: but for ordinary nursery purposes, as we have before said, the layered branches are used as making the best stocks. These stocks and the Paradise stocks have been used both in France, England, and this country, for dwarfing the apple tree, and thus bringing numerous sorts within the sphere of a moderate sized garden. The Paradise is used more for producing a bushy-headed dwarf tree, and for bearing a fruit which is higher colored, and earlier; while the Doucin is for raising a pyramid or dwarf standard by more careful training.—Lindley says in his "Theory and Practice of Horticulture," p. 354: "In some soils Doucin stock would not succeed for apples," and speaks of the apple on Doucin stock as requiring a loamy or moderately light, but *not chalky*, soil.

The apple scion is changed in no other respect, either as regards habits of growth, flower, fruit, or quantity produced upon a branch of a given size, except that the tree will bear quicker, is most emphatically dwarfed and its products are of course limited by this diminution in size; while by being trained into the pyramidal form, it can be made quite ornamental; and the garden, not being overshadowed by the branches of large standards, can be allowed to produce other fruits; and vegetables and flowers can be cultivated to advantage.

If you are confined to an area of one-tenth of an acre, and wish to have 100 or 200 samples or varieties, and those as fine and fair as possible within that space, we can decidedly recommend the dwarf or pyramid trees. If you wish the orchard for ornament, there is no finer show than to see such miniature trees laden with the most perfect and handsome fruit; and again, dwarfs always bear sooner after planting than standards. But if you speak of an orchard merely for quantity of product and for profit, we must suggest that the standard trees, when come into bearing, will produce more fruit per acre, and in the majority of cases of equally fine quality with the dwarfed stock, while the care required in maintaining your orchard in fine condition will be far less than if you have the pruning and care of these pyramids.

Where land is valuable and labor expensive, it is often of consequence to the orchardist to have speedy returns for his money and trouble. In such case the space between his 200 standard apple-trees, unless devoted to other purposes, can be filled with early and showy sorts upon the Doucin stock, which will commence bearing on the third year after planting; and when the standards come into full bearing those can be transplanted or destroyed. We would only recommend the space abovementioned to be devoted to quite early and quite showy fruit. These early sorts always become fair to the eye, smoother, and have less imperfections upon the dwarf than upon the standard stock. The Red Astrachan, although not the earliest, is one of the most showy fruits that can thus be cultivated, and one of these dwarfs covered with this magnificently conspicuous variety, is as gay and gaudy in appearance as the handsomest of flowering shrubs; while in usefulness it is producing a valuable addition to our table luxuries.—*Horticulturist*.

FOREIGN AGRICULTURE.

The British Harvest of 1859.

FROM THE LONDON FARMER'S MAGAZINE.

I have been so long honored with space in your valuable magazine for the effusions of my pen, that I at times shrink from my privilege as a contributor, lest I should be found to mislead my readers, or fail to contribute ought worth their reading. It has been my custom for several years past to give my views of the harvest, either in prospect or subsequently to its collection. I regret that from various causes my report should have been so long delayed; however, it has enabled me to arrive at a more definite conclusion as to the real facts, upon which it will be my duty and pleasure to report. I shall therefore give a summary of what is so far reported of the crops and produce, taking them collectively, and in order throughout the country, and, if my report does not extend to an unreasonable length, will endeavor to include both Scotland and Ireland.

Taking the harvest generally it has been one of the most expensive ever known, owing to a most abundant crop of straw, a simultaneous ripening, and consequent extraordinary demand of laborers. The hot, parching weather of July having brought on a premature ripening, all farm work become crowded, men were not to be had, and prices therefore rose immoderately high, particularly in the middle counties. This simultaneous ripening had also the effect of preventing the harvestmen of the early districts migrating to the more backward ones, so that the prices in these backward districts, for cutting and stocking only, ranged from \$1.50 to \$3.65 per acre. One fact is worth recording here. A farmer had to give \$3.12½ per acre for the reaping of his crop, which, on thrashing, was found to yield two quarters of inferior wheat per acre, which he sold at \$4.00 per quarter. Many similar cases might be related. In the Fens much of the grain was shed on the ground, owing to the impossibility to procure hands. The wheat crops, however, were so very bulky in straw and thin in grain, that the loss was comparatively light. The oats and beans suffered severely. Nor was this confined to the Fens; many districts suffered great losses.

I shall endeavor to take the counties in their order of latitude, beginning with the southern counties. I find from various reports that much unsettled weather, heavy thunderstorms, and continuous rains occurred during the latter part of the harvest, and led to much wheat being harvested in bad condition. The quality of the grain is far upon the average, but much thin and blighted corn is found upon thrashing, and the produce is said to be from two to three sacks below the last year's crop. This is important, as it was generally thought the crops in the southern counties, i. e., Cornwall, Devon, Dorset, Hants, Sussex, and Kent, were remarkably good. It is an unquestionable fact, that when premature ripening takes place it always causes a great amount of the grain to be thin and shrivelled; such was the case this season. The barley crops are all reported as being inferior, and under an average. The oat crops are still worse spoken of, except in Kent, where they are good. I therefore do not gather anything very encouraging from the reports of the southern parts of the kingdom. In the south-west absence of rain in the summer has been much felt.

I will now take another line across the kingdom, and shall include the counties of Essex, Middlesex, Oxford, Berks, Wilts, and Somerset. In the latter county much of the wheat has been got together in fair condition; but a good deal has been seriously injured by heavy rains and taking wet in the stack. The same report is given, of thin and blighted grain being found on thrashing, and two or three sacks per acre short of last year. The barley is much sprouted and stained, but the crop is large; as is also the oat crop. Beans irregular, and under an average. These remarks will apply equally to Wilts, Berks, and Middlesex; but Oxford and Essex are better spoken of, and the crops there were heavy; however, they were much beaten down, and do not prove well. Barley has suffered severely from rains, and the winter beans are improving. I do not, therefore, gather much encouragement from my second district, but on the contrary, I believe it will also prove an unprofitable harvest to the occupiers of these counties.

I will now take the next line across the country, in which I include the counties of Suffolk, Cambridge, Huntingdon, Bedford, Buckingham, Gloucester, Hereford, and South Wales. In these counties, being about the same latitude, the reports are of a similar nature. In Suffolk, the wheat is said to be

fifteen to twenty per cent. below par. The barley is so much injured that not one-half will be fit for malting; much of it was sprouted prior to cutting. In Cambridgeshire not much better is reported; crops never varied more. The heavier the crop, the worse the produce; rains were heavy, and much carted out of condition. Beans fair. Oats good. Some good barleys were secured—the Fens wretched. In travelling westward, we find the same unfavorable report. In Gloucestershire, both wheat and barley were much laid by heavy thunderstorms and rains; so that the crops come light to hand, and the yield will be much inferior to 1858. Beans and oats fair. In Herefordshire the harvest weather was beautiful, but the crop of wheat is said to be much lighter than the past two years, and a great decrease in the quantity of acres sown. The rains having been tremendous in the summer, it has caused a thin and varied sample. In one instance, a wheelbarrow filled with stones was carried along by the flood. The midland counties of Beds, Herts, Hunts, and Bucks are rather more favorably spoken of; but the same premature ripening took place, owing to a scorching July and the same fall of heavy rains; so that I do not gather a favorable account of the prospects of these counties. Like all similar districts, the samples are only varied; but the crops being rather lighter in bulk of straw, the produce in grain is somewhat heavier. In South Wales the crops of wheat and barley are only fairly spoken of; but oats are light; rains have damaged them.

I take another line across the kingdom, and in this shall include the counties of Norfolk, Lincoln, Northampton, Rutland, Leicestershire, Worcester, Stafford, Shropshire, Cheshire, &c., and North Wales; and the reports given of these counties are more discouraging than of others. Nottinghamshire is said to yield one-fourth less than an average yield of wheat, of very varied character; and barley is the worst and most varied crop known for years; and also one-fourth below an average yield. Oats fair. Peas fair. Leicestershire is rather better reported. A fair yield of wheat, but of inferior quality. Barley is inferior in color and weight. Oats fair. Winter beans bad; spring ditto good. Lincolnshire is a large county, and bears away northward. The Fens are very defective. The wheat amazingly heavy in bulk, but grain light and bad. Oats are a very rough, but good crop. Beans good. Peas fair. The higher lands are bulky in straw, but are better in grain, although very inferior to most years; certainly by no means an average crop. Barleys are heavy and coarse. Oats fair. Beans good; winter ditto bad. In the western counties in this latitude the same character of the harvest is given, but rather more favorable. The hot July and the heavy thunderstorms, however, have done them great damage. Winter beans in the west are well spoken of. In looking over the reports connected with this line across the kingdom, I have the impression left that, like all others, it will be found very defective in yield and quality as respects wheat and barley, and fair for oats, beans, and peas. In the produce of flour and wheat, it will be found full one-fourth below an average of years, but the quantity of wheat per acre will not be so low; perhaps one-sixth below an average would be near it, but bad in productive quality.

I will now take the northern counties—York, Lancashire, Westmoreland, Durham, Cumberland, and Northumberland. It is remarkable that, while the midland counties have been enjoying one of the most productive seasons ever known, the northern counties have been suffering most severely from a long and continuous drought, no rain of any consequence having fallen from April to July. The pastures are therefore burnt up. The barley and spring crops generally were bad, and the wheat crop is the only fair one; it also is very light in straw, but yielding fairly, and the wheat is of good quality. In Yorkshire the wheat and barley crops are well reported of. In Cumberland and Durham wheat is well spoken of, but the barleys are various in yield and quality, generally under an average, as are also oats. Beans are nearly a failure in Cumberland, while in parts of Durham they are good. In Westmoreland all the crops are deficient, and in Lancashire they are not well spoken of. From this also assumed district I gather that a fair proportion of wheat of average quality will be forthcoming, but that all the spring crops will be greatly deficient. I have taken pains to collect information relative to our country's harvest, and the result is that, as a faithful reporter, I must say that it will be found a very defective one as regards the produce of wheat itself; and further, that this wheat will not yield the usual average of flour, but

will vary in the product to from three to five pounds per bushel. The barley crop, as a whole, is one of the worst on record for the maltster; a large breadth has suffered much from sprouting and bleaching, so that a good sample of pale malt will almost be a curiosity. The produce of the crop is certainly much under an average one, and very thin in grain. This is the general report, but when the storms and heavy rains are taken into account, we do not wonder at its bad malting qualities. Much of it must of course go for feeding purposes. The oat crop is much more favorably reported of, and, with the exception of the northern and one or two of the south-western counties, is highly spoken of. It is likely to turn out well, and a fair breadth has been sown. The quality, owing to the vicissitudes of the weather, will of course vary much. In the midland counties the yield will be abundant. The straw, a very full crop, will be coarse, but very indifferent fodder; it almost rotted on the ground. The bean crop reported of in nearly the same terms. The northern and south-western counties, owing to the absence of rain, have all defective crops, in many cases total failures; but the midland counties are all fairly spoken of, except the winter variety, which in many places totally failed. This will not be a productive crop, certainly not an average one, but the quality is fair, and it will relatively bear a good price.

The pea crop is not so well spoken of, although no great complaints are made, and these have not so totally failed in the northern counties. The early varieties are good, and the general crop may be taken as nearly an average one; but the samples of peas themselves are small, which must detract from the yield and price.

The quantity of old wheat remaining unsold by the farmers is no doubt considerable; but as the harvest was a very early one, we may calculate upon a thirteen months year to another harvest; so that all will be more than wanted. There is unquestionably great prosperity in our manufacturing districts, and therefore a great demand for bread will continue; added to this, there does not appear to be any great surplus of grain to come from abroad, most of Europe having suffered alike with ourselves; so that I have come to the conclusion that when the first pressure of grain upon the market is freely over, we may anticipate a gradual and steady improvement in price, particularly for wheat.

Prejudice of Color.

Wilson Flagg thus writes to the *New England Farmer*:

Some years since, while I was engaged in selecting a pair of chickens from the dressed fowls in a butcher's stall, a Frenchman stood near, and, observing that the dealer seemed to prize very highly a particular pair, on account of their bright yellow skin, he remarked that the preference for yellow-legged and yellow-skinned fowls was a Yankee prejudice. The dealer admitted that this might be true, but that it was for his interest to buy the most saleable articles, and he had found by experience that the yellow-legged sorts could be sold more rapidly and for a higher price than any others. The Frenchman replied that the Americans were very dull in the exercise of their observing faculties, and he suspected that their natural love of gold must be the cause of a preference, which was founded on an egregious error. In France, he added, the yellow-legged chickens are considered unfit to be raised. Their flesh is dry and stringy, compared with that of the blue, black, and white-legged fowls, whose flesh is by far the most tender and juicy.

I have, since I heard the Frenchman's remarks, taken every opportunity to put them to a rational test, and have found them to be correct. The yellow-skinned fowls have commonly either green or yellow legs; those with black, blue, or white legs have a white skin. There are some exceptions; but the exceptions are not numerous. I raise a great many chickens every year for my own table, calculating to supply it weekly with one pair, from July to February. For two years past, I have kept the Black Polands, which are black-legged; the Golden Pheasants, which are blue-legged; White Polands, with white legs, and another sort, allied to the Dorking, with yellow legs. The chickens are all raised and fed in the same way, yet the yellow-legged individuals have almost always been found inferior to the others with white skins. The last are the most tender, delicate, and agreeable. There are occasional exceptions, but so frequently are the yellow-legged chickens dry-meated compared with the others, that I am surprised that our own countrymen have not discovered the fact.

It is remarkable that the same prejudice exists in this part of the country in regard to Indian corn. Is it possible that the Frenchman's satirical jest upon our love of whatever

resembles the color of gold is founded on fact, and that this prejudice carries away our judgment? The New England people consider the yellow corn the only sort that is fit for the table, and believe that the white kind is fit only for hogs and cattle. The opposite of this is the truth. Meal made from the white corn is the best for cakes and puddings, but the yellow corn is more fattening when given to domestic animals, and is preferred by them to the white. The Southern people are well acquainted with this fact. All their Indian bread and their hominy are made from white corn; and they smile at our simplicity, which leads us to prefer the yellow corn. As the Southerners use Indian corn in a greater variety of preparations for the table than we do, and are adepts in this branch of domestic economy, I think they are better authority than we at the North in this matter. I may add that those individuals of my acquaintance who have experimented upon the two sorts of Indian corn have concluded that the Southerners are right.

The superior sweetness of the white ears of corn, when they are in the milk and boiled for the table, are apparent to all. But the community have been very slow in finding out this fact, and even at the present day some persons may be found, not apparently deficient in common sense, who still cultivate the yellow corn for table use as a green vegetable.

As far as my judgement respecting the quality of fruits and esculent roots can be formed from their color, it will be found that the nearer the color approaches to white, the more sweet and delicate the flavor. Of beets, turnips, cherries, currants, peaches, and grapes, the sweetest are white, or nearly colorless. It is a matter of very common observation that of all the different kinds of potatoes, those with yellow meats are more liable to be rank and disagreeably flavored, and are coarser grained than the other sorts. The best of all varieties are those with white meat or pulp; a tinge of red or blue is not, however, so bad a symptom as a tinge of yellow. It is not always wise to attempt an explanation of these things; but if I were obliged to guess the why and wherefore of this fact, I should say that the materials which produce sugar in a white beet or a white currant are used up in producing the coloring matter in the red ones. It is also highly probable that the coloring matter of vegetables possesses a flavor peculiar to itself, and not always agreeable. It is evident that the coloring matter of the yellow-meated potato is acid and the purple coloring matter of the grape is aromatic. I have no doubt that if a white variety of the tomato could be produced from the common stock, it would be found greatly to surpass the red and yellow kinds in delicacy and sweetness.

The color of good butter, which is commonly of a bright yellow, may be considered an exception to the facts stated in these remarks. I would not be understood, however, to say that my remarks are applicable to all substances. Butter which is prepared in winter, when the cows are fed chiefly on dry food, is usually light colored, and is inferior to the bright yellow butter of June. But when the difference in the color of butter proceeds from the peculiar nature of the cows, the yellow kind is no better than the white. A cow whose flesh contains light colored fat or suet, always produces milk that yields light colored butter, and when the light color arises from this cause, it is no evidence of inferiority.

Saginaw Valley.

It is very generally supposed that the part of Northern Michigan known as Saginaw Valley is entirely and heavily timbered with pine. A late number of the *Republican* published at Saginaw City, corrects this idea, and says:

"This is, at the present time, known abroad as a Pine country; and in the minds of most people, pine lands are not very valuable for farming purposes. Pine lands have usually a light, sandy soil, and require the use of manure to get full crops; and the intelligent emigrant is disposed to select other lands for settlement. The Saginaw Valley, while it produces the finest quality and also immense quantities of Pine lumber, should not be regarded as a Pine country, for not one acre, in fine, of the whole Valley, grows Pine timber. There are occasional belts of land where pine is the principal timber; there are tracts of a few thousand acres in a body, timbered almost exclusively with Pine; but the great body of lands in the Valley are rich, hard-timbered lands. If all the swamps and all the pine timbered lands were estimated carefully, I do not believe they would constitute a quarter of the whole."

A new law in Connecticut makes it felony to drive a hired horse beyond the point bargained for. The fine is five dollars, and fifteen days' imprisonment.

FARM MISCELLANEA.

Weights and Measures—A Good Proposition.

The N. Y. *Tribune* states that:

A proposition will be submitted to Congress at its ensuing session, backed by the unanimous approval of the Legislature of New Hampshire, having for its object the establishment of a uniform system of Weights and Measures, based upon the decimal principle so happily imbedded in our currency. In other words, Congress will be asked to establish a unit of weight the existing pound avoirdupois, for instance—and another of measure—the present pint, quart, or gallon, if that be deemed advisable—with divisions into tenths and hundredths, and corresponding measures or names for quantities ten, one hundred, and one thousand times the unit. Thus, instead of our present artificial and perplexing scale of measures, we would have one substantial by like this:

10 lines, 1 inch: 10 inches, 1 foot:

10 feet, 1 rod: 10 rods, 1 road:

10 roads, 1 mile: 10 miles, 1 league:

with names expressive, or at least indicative, of the extent expressed by each. So with weight; the new scale would be after this fashion:

10 grains, 1 scruple: 10 scruples, 1 drachm:

10 drachms, 1 ounce: 10 ounces, 1 pound:

10 pounds, 1 stone: 10 stones, 1 hundred:

10 hundreds, 1 tun:

with names of the several measures as much more fit and expressive as may be.

The need of this change is very great. Our present weights and measures are defective and uncertain to an extent that will not be credited a generation hence. We are perpetually buying and selling by the barrel; but who can say how much a barrel is? We have at least two different measures of quantity, each called a bushel; two dissimilar gallons; one pound divided into twelve ounces, and another into sixteen; two tons, one of 2,000, the other 2,240 pounds; and we are habitually buying and selling potatoes and other vegetables by the heaped bushel, which is more or less, according to the generosity or dexterity of the measurer. It can hardly be an over estimate that knavery and craft plunder honesty and simplicity of millions of dollars per annum by means of these "false balances," which the Good Book declares "an abomination to the Lord."

Habits of the Crow.

Wilson Flagg has a pleasant article in the *Atlantic Monthly*, in which he argues that the crow is a useful bird to the farmer. This is his plea: "The crow consumes in the course of a year, vast quantities of grubs, worms and noxious vermin; he is a valuable scavenger and cleans the land of offensive masses of decaying animal substances; he hunts the grass fields, and pulls out and devours underground caterpillars, wherever he perceives the signals of their operations, as evinced by the wilted stalks; he destroys mice, young rats, lizards and serpents; lastly, he is a volunteer sentinel about the farm, and drives the hawk from its enclosures, thus preventing greater mischief than that of which he is himself guilty. It is chiefly during seed time and harvest that the depredations of crows are committed." It is true that the crow destroys many insects, and in fact does much good; the mice and rats killed by him do not probably go far towards his support, and his destruction of lizards and frogs (of the latter he kills large numbers) can scarcely be ranked as beneficial to the farmer. As to his preventing greater mischief than he himself does, by driving away the hawk, it is at least questionable. It is well known that the crow is very destructive to small birds, devouring both eggs and young. In this destruction of insectivorous birds, he perhaps does more injury than in any other way. His depredations on crops are chiefly committed in spring, by pulling up the young plants of Indian corn and other grain, or sometimes digging up seed potatoes. It is seldom that he does much damage in the fall.

Names of Potatoes.

A correspondent inquires the origin of the potatoes called "Black Meshannock and Peachblow?" The word "Meshannock" is a corruption of Neshannock, and was probably applied to the potato in question from its resemblance in shape to the original Neshannock, *alias* Mercer, Chenango, &c. It is the same that is called in some sections "Black Yam," but we do not know its origin. The so-called Peach-blow is known in various sections as Kentucky Red, Western Red, Sand Lake, &c. It is probably an old variety, whose origin is unknown. It is hardy and productive, and is said to have been the parent of several new and valuable kinds, as the Davis Seedling, Worcester Seedling, or Dover, &c.—*Bost. Cult.*

Notices of the Press.

Our own MICHIGAN FARMER visits our table every week, and brings a feast of good things. The FARMER sustains a high character among its class of journals. We are happy to see that our State has had the good sense to appreciate the talent of its editor, R. F. Johnstone, Esq., and appoint him to the position of General Superintendent of the Agricultural College Farm at Lansing. We are sure he will fill the position with advantage to the State, the students and the farm, and with credit to himself. The FARMER is published weekly by him, at Detroit. \$2.00 per annum.—*St. Johns Democrat*.

THE MICHIGAN FARMER fulfills the promises of its prospectus, which is more than can always be said of such promises.

The series of articles on "The Structure and properties of Wool," by Dr. Goodby, are valuable and interesting, and any scientific publication in the country might well be proud of them.

The price current, the editor may, and we hope will, make a prominent specialty of the FARMER. The Farmer's newspaper ought to be a perfectly reliable source of information as to the markets of produce.

We hope the FARMER is a success, pecuniarily. It certainly deserves to be. Mr. Johnstone has shown himself courageous in changing the FARMER to a Weekly at such a precarious crisis.—*Gazette*.

MICHIGAN FARMER.—To the farmer and horticulturist of Michigan, this publication is unequalled. Devoted to the advancement of their interest it is always filled with good things, suited to their wants and necessities. Good farmers will have this paper. It is published in our own State and is furnished as cheap as any paper in the United States.—*Lapeer Republican*.

THE MICHIGAN FARMER finds its way to our table regularly every week. It is gratifying that the intelligent farmers of Michigan are so well represented through the columns of this weekly journal, and they give it their generous support. No paper in the Union excels it, and for the latitude of Michigan, no one equals it.—*Genesee Democrat*.

We notice that our Agricultural Society have adopted the plan of awarding, in some cases, copies of the MICHIGAN FARMER as premiums. This is a good move, and those who are so successful as to draw them will find them of much more value than the "Diplomas," and "Transactions" which used to be awarded. We consider the MICHIGAN FARMER, published at Detroit, and the *Ohio Farmer*, published at Cleveland, as two of the best and most useful agricultural papers in the country, and no intelligent practical farmer should be without one or both of them. You would find either of them a good investment. Price of each \$2.50 per annum, \$1.50 in clubs.—*Branch County Republican*.

MICHIGAN FARMER.—We cannot too highly recommend this farming journal to the notice of our agricultural readers. It should be in the hands of every farmer, and of every farmer's wife and children.—*Rep. Banner*.

THE MICHIGAN FARMER, is received, a splendid weekly journal, devoted to the affairs of the farm, the garden, and the household, published at Detroit by R. F. Johnstone. It is a neatly printed quarto sheet "chuck full" of the very best agricultural reading. We wonder that there is not a larger number taken here.—*Ingham Co. News*.

MICHIGAN FARMER.—We cannot over estimate the value of this excellent agricultural journal. For reliable information relative to the subjects of which it treats, it cannot be excelled. Every farmer in the State should take it. It is a large weekly paper published in quarto form, and is cheap at \$2 a year. Three copies for \$5, five copies for \$8, and ten copies for \$15. Address R. F. Johnstone, 130 Jefferson Avenue, Detroit.—*Bay City Press*.

We are in receipt of the MICHIGAN FARMER, a weekly journal of affairs, relating to the farm, the garden and the household, published at 130, Jefferson Avenue, Detroit Mich., R. F. Johnstone, Editor. The FARMER is pronounced by competent judges to be one of the best agricultural papers extant, and we cheerfully annex it to our list of Exchanges. The low rates of their clubbing terms, afford an opportunity for every farmer to subscribe.—*Morenci Star*.

MICHIGAN FARMER.—This weekly journal is becoming more and more a credit to our State. Each number is filled with important matter, with most judicious selections and able editorials. It certainly deserves to be sustained and supported by our agricultural people. It is an excellent reading and family paper also—contains the latest general news and scientific intelligence. Its horticultural calendar, for April, contains articles on the preparation of the garden, on kitchen garden plants, on apple seeds and their treatment, which are useful to every one who has a garden to cultivate. The price of the journal, is \$2 a year—three copies for \$5, or five copies for \$8, in advance. We hope the efforts of Mr. Johnstone, the able and indefatigable editor, will be amply rewarded by a large list of home and foreign subscribers.—*Marshall Express*.

Many letters from private personal correspondents are even more encouraging than the above. We have room for but one or two. An influential farmer in this State writes:

"I send you a few more names for the FARMER. Our town will make a show on your Books another year. Many eastern agricultural papers have been taken here, which are good enough as far as they go, but we find out that if we want to know anything about Michigan agriculture, we have got to look to the MICHIGAN FARMER for it. Your weekly is much liked. It comes fresh, prompt, and full of good things every time."

A Massachusetts subscriber says, "I take nearly all the agricultural papers published in the United States, and would rather be without any three or four of the others than the MICHIGAN FARMER."

One in Western Illinois writes: "Enclosed find my subscription for the FARMER. I have tried a good many papers, but none seem to come right home to us with the information we want as yours does. Let Eastern ones say what they will, and strain themselves to the utmost to buy up our subscriptions at a discount, they cannot satisfy us; we have not what we want here at the West, till we get the MICHIGAN FARMER."

NEW ADVERTISEMENTS.

HORACE GENELEY & Co., N. Y. New York Tribune.
A. C. HARRIS, Toledo, O. Suffolk Pigs.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, DECEMBER 17, 1859.

1860. THE 1860.
MICHIGAN FARMER,
A WEEKLY JOURNAL OF

The Farm, The Garden, and Household.

EDITED BY

R. F. JOHNSTONE AND MRS. L. B. ADAMS,

ASSISTED BY

A large Corps of able Correspondents from all sections of the State.

THE MICHIGAN FARMER is a Journal for the Farming community, and ought to be sustained by the Farmers and Citizens of Michigan:

1. Because it contains each week articles detailing the practice of the farmers of Michigan.

2. Because it contains the most practical and soundest advice on all matters connected with the Orchard and Fruit culture in Michigan.

3. Because it contains the best and most worthy selections from the Agricultural Journals of other States, also from those of the Old World.

4. Because it contains the proceedings and details of the actions of the Michigan State Agricultural Society, which no other Journal publishes.

5. Because it reports the whole proceedings and practice adopted and pursued at the State Agricultural College.

6. Because it contains a perfect Stock Register, in which is recorded the pedigree and descent of all pure bred Live Stock brought into or raised in Michigan.

7. Because it contains, and keeps the Farmers advised of the course of the markets, at home and abroad, for all productions of Michigan Agriculture.

8. Because it is free from all political and religious bias, and is entirely independent in its course, and is more practical in its teachings than any other publication of the kind.

9. Because a large portion of its columns are devoted to the interests of the firesides, and the Households of Michigan.

10. Because it contains the most reliable information in regard to the prices of all Agricultural Produce.

11. Because it represents more than any other journal can, the interests of the Farming community of Michigan; being for eighteen years the true and tried exponent of those interests.

12. Because no Eastern or Western Journal can supply its place, or give the Agriculture of Michigan its true position and standing as this Journal does.

13. Because the MICHIGAN FARMER is THE FARMER'S OWN JOURNAL.

TERMS OF SUBSCRIPTION:
Single Subscriptions \$2.50 per annum. Clubs of three names, or over, at the rate of \$1.50 each.

R. F. JOHNSTONE, Publisher.

Detroit, Dec., 1859.

The Thirteen Reasons.

We give place in our columns this week to the Prospectus of the MICHIGAN FARMER for 1860, and call particular attention to the Thirteen Reasons why the FARMER ought to be sustained by the people of Michigan.

One more might be added; it is one of the best advertising mediums for men engaged in raising stock, or manufacturing, or selling agricultural implements, either in the State or out of it, as it goes directly among the class of readers who are most interested in such matters.

We have on hand a number more "Notices of the press," which we shall give next week, showing how the Farmer is appreciated in our own State, and also most encouraging letters from friends and agents, from some of which we shall give extracts if we can find room.

Meanwhile, friends, circulate the papers among your neighbors, and ask them to read the THIRTEEN REASONS.

The Market Prospects.

It will be seen that we publish a very interesting article relative to the crops in Great Britain on another page which will repay perusal. From this we might draw the inference that there was a prospect of a good foreign demand about the time of the opening of navigation in the spring. Still it must be borne in mind that if there should be such a demand at that time, there must necessarily be such a large amount of produce to go forward, that it cannot be expected that any great extreme in prices can be reached. Besides, the best facilities afforded by railroad communications with the Atlantic seaports will keep them so well glutted, that the holders of produce will be too anxious to part with their stock, at reasonable rates; all this will then affect the market, and must be considered well by those who have a large stock of produce on hand to sell.

Practice with Steamed Food.

We hope our readers will give their attention to the excellent communication from one of the best and most successful farmers in this State, which is on another page; it should be read by all men who are interested in the feeding of cattle and other stock. It

is practical and to the point, and gives just the information that is wanted. Why will not more of our farmers communicate the results of their operations and experience in the same manner? Such facts, and such practice as Mr. Heydenburg sets forth, are the means of doing a great amount of good, and direct attention to what can be done, by a man who uses his thinking powers. We should have been greatly gratified if an account of the exact result of the different modes of feeding could have been furnished to us, and hope to hear from Mr. Heydenburg, again upon this subject. We have been at his place, and have long meant to be there again, for the purpose of obtaining an exact measurement of his barn and out buildings, which are on a side hill, and of a peculiar structure, and possess conveniences that are worthy to be noted. After the next month we hope to be once more free from all "entangling alliances," and at liberty to travel and observe what our agricultural friends are about.

The State Agricultural College.

The Lansing *Republican* of November 29th contains the following paragraph in a notice which was made of the Report of the Superintendent of Public Instruction relative to the Agricultural College:

"There has been a marked falling off in numbers during the academical term just now closing, which may have had its influence in guiding the Superintendent to his conclusion; but whether so or not, we are unable to state. If not misinformed, the summer term had in all more than one hundred students, and closed with about fifty—a significant fact, not unlikely to have had its effect upon the mind of the Superintendent, and the action of the Board of Education."

In reply to this, and as explanatory of the falling off referred to, Professor Fisk addressed the following letter to the *Republican*:

Statement of Facts.

EDITOR *REPUBLICAN*—I infer from an editorial headed "State Agricultural College," which appeared in your paper of the 29th ult., that you are laboring under some misapprehensions in regard to the College.

You state that "there has been a marked falling off in numbers during the academical term just now closing." * * * * * If not misinformed, the summer term had in all more than one hundred students, and closed with about fifty—a significant fact, not unlikely to have had its effect upon the mind of the Superintendent, and the action of the Board of Education."

The facts are these: The term commenced with eighty students, about the same number as in the winter, but twenty less than at the opening of the summer term the year before, and closed with sixty, a number equal to that which was in attendance at the end of the last year, although the term continued eight months instead of seven as heretofore.

The falling off was, therefore 20 per cent. less than the year previous. Moreover, at the commencement of the summer term of '58, there were nearly twenty young men that were examined but not admitted because the College was full, who stood as a reserve corps, having pledged themselves to keep up with the College classes, and hold themselves in readiness to step in and fill any vacancies that might occur. Thus the falling off in '58 was nearly 40 per cent. more than in '59.

There are three reasons that operate to produce a temporary or permanent diminution of students from the College.

1st. There are young men that come to the Institution with the impression that their labor will defray all their expenses, including board, books, clothing, and everything else; but, discovering their mistake, they are compelled by poverty to leave before the term closes.

2d. Sickness has at times thinned our ranks. I remember very well, sir, that at two or three different times during the last season, you have in your paper represented almost the whole of Lansing as prostrated by sickness, so much so that your remarks were copied by the press of other States to show the affliction under which we all were suffering.

3d. Parents have brought their sons which they could not control at home, to the College, hoping that by the labor and discipline of the Institution they might be reformed. You are aware that such boys we are sometimes compelled to dismiss, and thus our number is still further diminished.

I will here state, however, that many more young men have applied for admission into the College at the opening of the next term, than there are vacancies now to fill.

With regard to the feelings entertained by the students towards the Institution, we think we would not hesitate to refer you to the young men themselves for a solution of the question.

The advancement made by the classes and

the discipline of the school will, doubtless, be reported to the people of the State by the Board of Visitors, who have recently devoted a week to an examination of the condition of the Institution.

You say: "In respect to the support relied upon by the Faculty coming from the locofoco press," &c., I can only state that since the organization of the College the Faculty have made no distinctions on political ground in the administration of the affairs of the Institution, and they do not hold themselves in any way responsible for what the press may say, either Republican or Democratic. The issue sought to be created, by insinuation, between the Board of Education and the Board of Instruction is certainly very unfair.

So far as I am aware, the present Faculty are not seeking to throw obstructions in the way of a fair trial of the new policy about to be inaugurated, having themselves indeed recommended that some steps be taken to bring out more prominently the Agricultural features of the Institution. There may be individual differences of opinion in regard to the best means of accomplishing the result, but this produces no hostility of feeling or conflict of action.

I trust you will concede the justice of publishing the above statement of facts.

L. R. FISK.

Agricultural College, Dec. 2d, 1859.

In addition to this, we would remark that an examination of the lists of students shows that there have been altogether at the College during the past term 104 students; but at no time were there over 84 present, a number having entered during the term as vacancies occurred. Of these, there left during the term, from the several causes, the numbers as shown in the following table:

Left sick, and were unable to return.....	20
Died.....	1
Expelled.....	1
Left, not able to pay for board.....	6
Sent away for misconduct.....	4
Excused by request of friends.....	2
Total falling off.....	35

The number that left on account of sickness does not, in fact, show how disastrously both the studies and the labor were affected from that cause, which was very severely felt in the vicinity of Lansing last season. At one time or another, every able-bodied student was prostrated by fever and ague, and with one exception, every member of the Faculty. The following comparison, however, will afford some idea of its effects:

In the month of June, the work table shows that 6,018½ hours work were performed. In the month of July, 6,403½ hours. In August there were only 4,016½ hours; in September but 4,345½ hours, while in October there were 5,003½; showing that in August, when work was really of the utmost value, on account of the preparation of land for next year's wheat crop, the force was reduced nearly one third, and principally from this cause. In fact, we found on inquiry, that this was an annual visitation; for, the year previous the numbers present on the roll call of the working divisions hardly furnished force enough to man the teams necessary to do the work absolutely required.

It will be seen, therefore, that the falling off in the numbers of the students is not to be imputed to the cause referred to by the *Republican*, as the College closed its examination with sixty-four students present, a few having been excused a few days previous, that they might fulfill their engagements to teach school.

Literary News.

The Wisconsin *Farmer*, hitherto a monthly of thirty-six pages, will hereafter be issued semi-monthly at half the size.

The name of the *Northwestern Prairie Farmer* is to be changed to *The Farmer's Advocate*.

James Redpath is preparing for publication a Life of Capt. John Brown for the benefit of his family.

Leigh Hunt's son Thornton is preparing a complete edition of his father's works for publication in London.

Miss Evans, the author of "Adam Bede," is engaged in preparing a new novel for the house of Blackwood. The circulation of Adam Bede, in England, up to the 14th of November, had reached 12,000. The sales of the American edition have been at least twice as great.

Messrs. Ticknor & Fields are now the publishers of the writings of Ralph Waldo Emerson. They announce for early appearance his new work—"The Conduct of Life"—in uniform style with his former publications, to form one volume, 12 mo.

Mr. Charles Kingsley has nearly completed a new novel, which may be expected in the spring. The subject is different from most of Mr. Kingsley's actions; consequently more than usual interest is felt among critics for its appearance.

Lord Macanlay has two volumes more of his "History of England" nearly ready for the press. The heirs of Baron Humboldt are not disposed to let his valet have the legacy of the library. The bequest is disputed in the courts, say the German papers.

Mr. Carlyle is still busily engaged on his "Life of Frederick II. of Prussia." Volumes three and four will be published about the beginning of next season.

Scientific Intelligence.

Agricultural Patents issued for the Week ending December 8, 1859.—Wm. Cogswell and Ira Cogswell, of

Ottawa, Ill. Improvement in Harvesters.

A. B. Furbee, of Dresden, Ohio. Improvement in Corn Cribbs.

Jackson Gorham, of Bairdstown, Ga. Improvement in Plows.

F. E. Hinckley, of Galesburg, Ill. Improvement in Mole Plows.

D. Sanford, of Taylor, Ill. Improvement in Harvesters.

J. C. Stoddard, of Worcester, Mass. Improvement in Hay-making Machines.

A. P. Torrence, of Oxford, Ga. Improved Machine for Girdling and Felling Trees.

D. A. Willbanks, of Harmony Grove, Ga. Improvement in Thrashing-machines.

W. F. Yeager, of Starkville, Miss. Improvement in Plows.

George H. Hall, of Manakating, N. Y. Improvement in Horse Hay Rakes.

James W. McLean, of Indianapolis, Ind. Improvement in Steam Plows.

General News.

—Trains are now running regularly across the Victoria Bridge at Montreal.

—The steamer Milwaukee, lately ashore at Grand Haven, is not yet afloat. She is said to be unharmed.

—Henry Jumpertz, who has been in jail in Chicago for two years on charge of murdering his mistress, whose body it will be recollected he packed in a barrel and shipped to New York, was this week acquitted.

—Congress has now been in session for over a week, yet the House is as far from an organization as on the day of opening. The time is being frittered away on fruitless discussions of the alavary question.

—Mr. J. Barnabas Campan, an old resident of this city, mysteriously disappeared about two weeks ago. Considerable excitement has prevailed, and a thorough search has been instituted, but as yet without bringing anything to light concerning his fate.

—Judge Terry has been indicted by the Grand Jury of San Francisco county, and held to \$10,000 bail, for the killing of Broderick.

—Vermont paid from her State treasury last year \$500 for killing bears.

—Mr. Lever has again offered to charter the Great Eastern for twelve months, but the proposition was refused without hesitation by the Directors.

—The Empress Eugenie and the ladies of her Court have definitely abandoned crinolines; they have also substituted short dresses for trailing ones.

—A letter from a European wine merchant says that the vintage of Port was never so short as during the present year, while Sherry is about one quarter of the usual vintage.

—The New York Historical Society have resolved to celebrate the next anniversary of Irving's birth by a public address on his life, character and genius, to be delivered by W. C. Bryant.

—The European powers invited to send representatives to the Congress, are those that signed the final act of Vienna, and the three principal powers of Italy.—The Congress will be thus composed of France, Britain, Russia, Prussia, Austria, Spain, Portugal, Sweden, Sardinia, Rome and Naples.

—A French farmer, proud of some turnips he had raised, sent one of large size to Louis Napoleon, recommending it for soup. The post office official thought the packet was an "infernal machine," and the poor farmer, after being arrested, had hard work to explain to the contrary.

—Upwards of fifty thousand barrels of apples have been taken to Chicago the present fruit season from stations in Michigan along the line of the Central Railroad.—About one third of the receipts were of winter varieties during the month of November. Michigan seems to be a special favorite of Pomona, among the Western States holding the first rank.

—A Washington correspondent says there is a movement on foot among men of wealth and political influence, quite capable of carrying out their programme, to furnish the Liberal Government of Mexico with the means and men to overcome the oppositions in the country. It is proposed in legal shape, and it is believed that the Administration will not discourage, but possibly favor it.

—Mr. E. M. Gregory, the well-known proprietor of the Franklin House at Ann Arbor, attempted to commit suicide on Sunday night by stabbing himself severely in the neck with a pocket-knife. His condition was discovered in time to save his life, it is confidently hoped. Mr. Gregory was laboring under great despondency, which probably produced temporary aberration of the mind, and led to the unfortunate attempt.

—It appears that the recently ratified treaty between the Chinese and the United States has already been nullified by the refusal of the former to open two of the ports named in the instrument. It will be remembered, however, that the treaty was only to take effect when the difficulties with France and England should have been adjusted, and that the present statement does not, therefore, affect the ultimate validity of the convention.

—A broker of Corunna named Wallace, has swindled several brokers and one or two banks in this city, out of various amounts of money, amounting in the aggregate to three or four thousand dollars, by selling drafts on the People's Bank of New York, purporting to be drawn by a banking firm in Illinois. The drafts were protested, the firm having no account at the People's Bank. Mr. Wallace has done considerable business with our bankers heretofore, and has always enjoyed their confidence.—His present whereabouts is unknown.

—The Charleston *Courier* says the Committee on Federal Relations in the South Carolina Legislature recommend the passage of resolutions reaffirming the position of South Carolina, declaring the right to secede from the Union, and that the people should make common cause to sustain her vindication of the institutions of the South. The committee also recommend that the military contingent fund be increased to \$100,000.

—Mr. Ward has not abandoned his steam ice-boat project for navigating the Upper Mississippi river in the winter. The friends of the enterprise are sanguine of success, and it is stated that Mr. Ward has all things in readiness at Prairie du Chien to launch his boat on the first closing of the Mississippi river. If successful, the boat is to make semi-weekly trips between St. Paul and Prairie du Chien. The engine is strong enough to draw sixteen loaded cars on the ice, and a St. Paul paper says that "its proprietors are ready to enter contracts for carrying down all the grain that can be gathered at different points on the river."

—During the funeral of Washington Irving in Tarrytown, business was suspended, mourning drapery was hung from every house, and the bells of the churches tolled for some hours. From the surrounding country and from New York and other cities, thousands of people assembled, in and about the church where the services took place. A procession more than a mile in length followed the remains of the deceased to the grave, where, besides many of the most distinguished men of New York, were nearly all of the Episcopal clergy, including the Provisional Bishop of the Diocese. The New York Common Council and the Trustees of the Astor Library were present; and the Historical Society was well represented. The services in the church and at the grave were conducted by the Rev. Dr. Oreghton, pastor of the church at Tarrytown, of which Mr. Irving was a member.

The Household.

"She looked well to the ways of her household, and sought not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

THE BACHELOR.

FROM POEMS IN THE DORSET DIALECT, BY WM. BARNES, ENGLAND.

No! I don't begrudge on his life
Ner his good, nor his house, nor lands;
Takes all o' it, and g'ives me my wife,
A wife be the cheapest of lands.
Lie alone! sigh alone! die alone!
Then be forgot.
No, I be content w' my lot.

Ah! where be the fingers so feat,
Vor to pat en so soft on the face,
To mend every stitch that do please?
An' keep every button in place?
Crack a-tore! brack a-tore! brack a-tore!
Button a-ried.
Vor want of a wife w' her dreed.

Ah! where is the sweet pirty head
That do nod till he's gone out o' sight?
An' where be the white arms aspread!
To show en he's welcome at night?
Dine alone! pine alone! whine alone!
Oh! what a life!
I'll have a friend in a wife.

An' when wrom a meeten o' meeth
Each husband do lead h'ome his bride,
Then he do elink h'ome to eie h'eth,
W' his arm hangen down his cold side,
Blinken on! blinken on! thicken on!
Gloomy an' glum!
Nother but dullness to come.

An' when 'e do unlock his door,
Do rumble as haller's a drum,
An' the varries a-lid roun' the floor,
Do grin vor to see en so glum.
Keep alone! sleep alone! weay alone!
There let en bide,
I'll have a wife at my side.

But when he's a-laid on his bed
In a sickness, O, what will he do!
Vor the hands that would lift up his head,
An' shake up his pillow anew.
Ils to come! pills to come! bills to come!
No soul to sheare
The trials the poor wratch must bear.

Decline of Conversation.

It should be as much a matter of duty and of conscience to insist on out-door exercise and in-door social recreation as upon any of the regular exercises of the schoolroom. Such studies should be confined absolutely to school hours. To allow them to encroach upon the later hours of the day, and upon the graceful household duties and recreations, which either are, or ought to be, provided for every girl at home; in other words, to subordinate home training to school training, or to intermit the former in favor of the latter, is a most palpable and ruinous mistake. It is bad even in an intellectual point of view. To say nothing of other disadvantages, it deprives girls of the best opportunities they can ever have of learning that most feminine, most beautiful, most useful of all accomplishments—the noble art of conversation. For conversation is an art as well as a gift. It is learned best by familiar intercourse between young and old, in the leisure and unreserved of the evening social circle. But when young girls are banished from this circle by the pressure of school-tasks, talking only with their schoolmates till they "come out" into society, and monopolized entirely by young persons of their own age, they easily learn to mistake chatter for conversation, and "small talk" becomes for life their only medium of exchange. Hence, with all the intellectual training of the day, there was never a greater dearth of intellectual conversation.

The above remarks are from the pen of a British writer, and are well worthy the thoughtful consideration of the parents and teachers of our own country. How many times have we seen children come home from school, with their arms full of books, and, listless and weary, seek some quiet corner where they could study over their tasks for the morrow's recitations.

Long, arbitrary rules must be committed to memory, word for word, exactly as they are in the book; hours must be spent over long lines of spellings with definitions that will be forgotten as soon as recited, and, with body and brain jaded and weary, the luckless pupils go through weeks and months of such drilling, till their education is pronounced "finished." Then they are turned out upon the world without the first idea of any practical use that is to be made of all they have learned. They cannot talk about science or history, except, perhaps, to repeat the answers to certain questions as they learned them in the books.

How many young girls literally waste the best part of their lives over their books, simply for want of some idea of how to use what they are at so much pains and cost to learn. Rhetoric, logic, history, botany and other sciences are studied in the books and recited in the class, but no mention is made of them at home or in the company of those with whom they associate, so that when school days are done, the books are laid aside and their contents, perhaps, never thought of as having any connection with the wants or the duties of the life upon which they are entering. All the time that such girls have spent in studying, is little better to them than lost time. More than one

such we have heard lament that they could not get their thoughts into words to write a decent letter to a friend. They had thoughts enough; they would say, but they could not get words together in the right shape to express them. This was because they had never learned to talk; they could chatter.

Home discussions should be encouraged among children. We have known instances where regular family lyceums were kept up all winter, sometimes the parents joining in with the debates and compositions, and sometimes carried on by the children alone. In one instance a family of eleven brothers and one sister, all between the ages of eight and thirty, held regular debates and readings, in which all participated, the parents being the audience, criticizing the performances, suggesting improvements, and, not unfrequently varying the programme by taking an active part in it themselves. All but one or two of the oldest were attending school at the time we knew them, and these evening entertainments at home were got up to illustrate by original plays, poems, speeches and orations what they learned from their books during the day at school. The effect of this home treatment was remarkable on their school compositions. They were prompt and to the point in expressing their views on whatever subject they took hold of. There was none of that stiffness or drawing, groaning schoolboy backwardness, and complaining about having nothing to write about and no words to express it in. They sharpened their intellects against each other constantly, and evolved ideas and thoughts of a nature that they could get hold of and use. This taught them to think for themselves, and not be altogether dependent on the words used in their text-books at school.

One great difficulty in the way of children learning to think and talk for themselves is that parents usually have too much work to do. The father is tired and wants quiet when the day's labor is done, and the mother, whose labor is never done, has so many restless little bodies with mouths and hands and feet to be cared for, that she falls into the habit of thinking that her whole duty consists in caring for them only. She leaves the mind, the formation of the mental character of her children, wholly to the school teacher; and her daughters grow up and follow her example. There are some most honorable and praiseworthy exceptions; but, mothers, ask yourselves if it is not so, to too great an extent, that you are so "cumbered with serving" the part that perisheth, that you forget the cultivation of those nobler faculties which are to prepare your children for higher usefulness in the world.

One of the best opportunities for conversation in families, is around the table, when all are met together for their morning, noon and evening meals; yet it is seldom, even there, that we see any effort at sociability made. It is all haste and swallow all that can be swallowed, so that no time may be lost from work.

Sometimes we have known children at table with their parents, venture a remark or question upon some subject accidentally suggested, when they would be suddenly cut short with a parental injunction to "eat what is before them, and let that stop their mouth," as if in having the mouth well stopped with meat consisted the whole duty of social life. In this way the family gatherings are made very dull and solemn affairs, and many opportunities are lost, that might otherwise prove most advantageous and instructive both to parents and children. From such tables at home, boys and girls go out into the world and sit down to other tables with no other ideas than to fill their mouths as full and as fast as possible. We are convinced that this practice has, in this country at least, been a great hindrance to the development of conversational powers among the young. The responsibility here rests more with parents than with teachers, and many of them need but a hint to make them see the wrong and set it right.

The Farmer.

"Look at the farmer dressed in his broad-cloth, and driving his splendid horse and buggy! how can we ever expect to arrive at any distinction as professional men, when you cannot tell the farmer and his equipage from the doctor and his, only by his pill bags."

This remark was made by a young Physician in one of our country villages, and I find it is the opinion of many, (and some perhaps who never earned a dollar in their lives,) that farmers or laboring men, and women too, are an inferior class, and that they have no business with a carriage or even a comfortable buggy, but that a vehicle similar to Mr. Brown's, of which we had a description in the FARMER last spring, is more suitable for any one in their occupation.

Now are not farmers themselves to blame

in a measure for the prevalence of this opinion? and the only way to remedy the evil, if evil it is, is for carriages to become so common among well-to-do farmers as not to excite a remark. Nothing gives me more pleasure than to see a farmer's family riding in their own carriage, providing it is bought and paid for out of the actual proceeds of the farm.

Recently, in a lecture by a young physician, to which I listened, some very disparaging remarks were made about farmers in an intellectual point of view; but perhaps they deserved it in a measure, some of them, for I have heard farmers say that they should not be expected to use good language, and that it was wrong to educate boys if you expect to make farmers of them, for an educated man will not dig in the dirt. Now this is all wrong. The farmer and farmer's wife, too, should be educated. If we have lacked advantages in early life, let us improve every opportunity now as we go along. It is never too late to learn.

Let us impress upon the minds of our children the true dignity of farming as an occupation. Let us educate them suitable for any profession, and then make farmers of them, unless they manifest a decided preference for something else; for an education that will qualify them to occupy a high position in the world, will impart a greater dignity and value to their agricultural pursuits; and we all know that being a farmer will never debar any one from attaining to any station in life, even a high political one, as we have examples enough to prove; and I have often thought if we had more farmers in Congress, our country would repose in greater safety than it now does.

A FARMER'S WIFE.

Employment of Women.

Prominent among the changes now in progress in society, is the new position women are taking in regard to employment, and ability to provide for themselves. The change has been very marked in New England within the last forty years, and during the last decade particularly, there have been many new methods of industry open to female competition. When the factory system was first introduced here, the daughters of the farmers and mechanics gladly availed themselves of the opening for their services thus presented. By their energy and prudence the mortgage on many a cherished homestead was paid off, and the aged parents were relieved from anxiety, in regard not only to the remainder of their days, but for the future support of their beloved children. There is many a professional man in our country who is largely indebted to his sisters for his education, and his labor enabled him to secure a liberal culture, and take an honorable place among his fellow citizens. As society advances, new employment is found for women, and now we have female artists, authors, and astronomers, whose fame is by no means confined to their native land.

The women of New England, and particularly those of Massachusetts, earn millions of dollars annually, in various branches of industry which have been introduced in modern times. In one part of the Commonwealth, female labor is employed upon binding shoes; in another district, braiding straw is the leading pursuit; in a neighboring county, palm leaf is converted into hats and bonnets by women; and in the seaport villages clothing is made by the female residents for large dealers in Boston. The effect of this home industry upon a large scale, has been the withdrawal of the whole native force from the factories, and the substitution of foreigners in manufacturing villages; while, in the matter of domestic service, the native women have almost wholly left the field, much to the regret and annoyance of housekeepers; and we apprehend that if the amount of the aggregate wealth of the women of Massachusetts could be ascertained, the sum would surprise everybody. They form a large class of the depositors in Savings Banks, and there is hardly a corporation within our borders that has not women among its shareholders. The independent industry of our New England women adds largely each year to the aggregate wealth of the community.

Female teachers are now more generally employed in our public schools than they were before Horace Mann labored in the cause of popular education, and normal schools were established to qualify young women for that service. The School of Design has enabled many women with special gifts to find useful and honorable employment; female bookkeepers are found in numerous business establishments, and on every hand women are now entering in increasing numbers on new methods of industry, introduced by the progress of science and art. The literary apti-

tude of women is an established fact, and in our own country, as well as in Great Britain, they are nobly vindicating the intellectual capacity of the sex. It is now apparent that a certain field of useful and elegant literature belongs specially to women. The more this whole subject is investigated, the more plainly will it appear that women are rising in the social scale,—that they are to a larger extent than ever before self-supporting, and that many of the disadvantages under which they have hitherto labored will be removed, so that they can more readily avail themselves of opportunities to become independent members of society.—Boston Transcript.

Mrs. Stowe's Book.

A writer in the Boston Transcript thus criticizes "The Minister's Wooing":

"A sufficient time has elapsed since the chapters of this work were gathered up from the trim garden of the Atlantic monthly and bound into the substantial sheaf of a thick duodecimo—to warrant the conclusion that everybody has read it; and although eulogy has been exhausted in its behalf, and the journals, as well as the booksellers' placards, studded with its title, we deem it not too late to offer a word of deliberate criticism—prompted thereto by the fact that the novel is claimed to be not only a work of superlative genius, but of consummate art; whereas, in the latter respect, we conscientiously find it a most crude performance,—failing to realize the promise of its title, held together by no congruous plan or purpose, desultory, inharmonious, and historically and biographically superficial. As a series of magazine sketches it has vivacity and interest—frequent power and beauty; as a finished romance of New England life, it is so inferior to Hawthorne and Judd that we marvel at the short memories of indulgent critics. Except a little theological talk there is nothing originally characteristic in the heroine; she is simply a pious, obedient, conscientious maiden, such as hundreds of stories of English and Scotch life have made familiar. Dr. Hopkins and Aaron Burr being introduced as real characters, are but slightly authentic; the current descriptions, personal and theological, have been restated by Mrs. Stowe, but not vitalized; indeed she moves in the fashionable sphere of her story with a conscious unfamiliarity, and makes the reader feel that this episode of Burr and Madam Frontignac has not only no relation to the novel, but none, through experience, with the writer. In fact it is only among homely scenes that Mrs. Stowe's cleverness finds scope. She describes a New England kitchen, garret, tea-drinking, church-going, quilting, cooking, dress-maker, etc., with surprising truth and animation. Moreover her didactic writing is often good. The best passages in this book are the economical descriptions and the negro-talk, with here and there an eloquent strain of remark on life in general and domestic life in particular. But the moment she draws near the Faubourg St. Germain, and the "old masters," she seems like a cat among crockery; the freedom and genuineness have departed, and we have commonplace and far-fetched writing.

If the admirers of the "Minister's Wooing" deemed it but a pleasant and clever story of New England primitive life, we should think it unfair to curiously note its defects; but it is talked of and written about, in some quarters, as a high piece of æsthetic and dramatic art—which it is very far from being; for, in the mere requisitions of local scope and fidelity, it is lamentably defective. A very peculiar society existed in Newport, R. I., at the date of this story—of the salient traits and special aspects of which Mrs. Stowe has taken no pains to inform herself. The slave-merchant then and there, and the hospitable gentleman resident, have left authentic portraits, which this writer never dreams of; moreover, the peculiarities of climate, scenery and culture, which identify Newport to those acquainted with them, are not recognized in the tale,—its scenes might have been laid in Portsmouth quite as well, or in any other town on the New England coast; whereas a proper study of the place and its social history would have furnished material so much more effective, significant and original, than she has made use of, that one is impatient to hear such superficial limning pronounced consummate "art," when Scott, Balzac, Hawthorne, and so many other writers of fiction, have given such models in picturesque and psychological delineation.

The servant of a Prussian officer one day met a caddy, who inquired how he got along with his fiery master. "Oh, excellently," answered the servant; "we live on very friendly terms—every morning we beat each other's coats. He takes his off to be beaten, and I keep mine on." It is exceedingly bad husbandry to harrow up the feelings of a wife.

Well Done and Ill Paid.

FROM DASENT'S TALES OF THE NORTH.

Once on a time there was a man who had to drive his sledge to the wood for fuel. So a bear met him.

"Out with your horse," said the bear, "or I'll strike all your sheep dead by summer." "Oh! heaven help me then," said the man; "there's not a stick of fire-wood in the house; you must let me drive home a load of fuel, else we shall be frozen to death. I'll bring the horse to you to-morrow morning."

Yes! on these terms he might drive the wood home, that was a bargain; but Bruin said "if he didn't come back, he should lose all his sheep by summer."

So the man got the wood on the sledge and rattled homewards, but he wasn't over pleased at the bargain you may fancy. So just then a fox met him.

"Why, what's the matter?" said the Fox; "why are you so down in the mouth?"

"Oh, if you want to know," said the man, "I met a bear up yonder in the wood, and I had to give my word to him to bring Dobbin back to-morrow, at this very hour; for if he didn't get him, he said he would tear all my sheep to death by summer."

"Stuff, nothing worse than that," said the Fox; "if you'll give me your fattest wether, I'll soon set you free; see if I don't."

Yes! the man gave his word, and swore he would keep it too.

"Well, when you come with Dobbin to-morrow for the bear," said the fox, "I'll make a clatter among that heap of stones yonder, and so when the bear asks what that noise is, you must say 'tis Peter the Marksman, who is the best shot in the world; and after that you must help yourself."

Next day off set the man, and when he met the bear, something began to make a clatter up in the heap of stones.

"Hist! what's that?" said the bear.

"Oh! that's Peter the marksman, to be sure," said the man; "he's the best shot in the world. I know him by his voice."

"Have you seen any bears about here, Eric?" shouted out a voice in the wood.

"Say no!" said the bear.

"No, I haven't seen any," said Eric.

"What's that then, that stands alongside your sledge?" bawled out the voice in the wood.

"Say it's an old fir stump," said the bear.

"Oh, it's only an old fir-stump," said the man.

"Such fir stumps we take in our country and roll them on our sledges," bawled out the voice; "if you can't do it yourself, I'll come and help you."

"Say you can help yourself, and roll me up on the sledge," said the bear.

"No, thank ye, I can help myself well enough," said the man, and he rolled the bear on to the sledge.

"Such fir stumps we always bind fast on our sledges in our part of the world," bawled out the voice; "shall I come and help you?"

"Say you can help yourself, and bind me fast, do," said the bear.

"No, thanks, I can help myself well enough," said the man, who set to binding bruin fast with all the ropes he had, so that at last the bear couldn't stir a paw.

"Such fir-stumps we always drive our axes into, in our part of the world," bawled out the voice; "for then we guide them better going down the hill."

"Pretend to drive your axe into me, do now," said the bear.

Then the man took up his axe, and at one blow split the bear's skull, so that bruin lay dead in a trice; and so the man and the fox were great friends, and on the best terms. But when they came near the farm, the fox said—

"I've no mind to go right home with you, for I can't say I like your tykes; so I'll just wait here, and you can bring the wether to me, but mind and pick out one nice and fat."

Yes! the man would be sure to do that, and thanked the fox much for his help. So when he had put up Dobbin, he went across to the sheep-stall.

"Whither away, now?" asked his old dame.

"Oh!" said the man, "I'm only going to the sheep-stall to fetch a fat sheep for that cunning fox who set our Dobbin free. I gave him my word I would."

"Wether, indeed," said the old dame; "never a one shall that thief of a fox get. Haven't we got Dobbin safe, and the bear into the bargain; and as for the fox, I'll be bound, he's stolen more of our geese than the wether in worth; and even if he hasn't stolen them, he will. No, no; take a brace of your swiftest hounds in a sack, and slip them loose after him; and then, perhaps, we shall be rid of this robbing Reynard."

Well, the man thought that good advice;

so he took two fleet red hounds, put them in to a sack, and set off with them."

"Have you brought the wether?" said the fox.

"Yes, come and take it," said the man, as he untied the sack and let slip the hounds.

"HUF," said the fox, and gave a great spring; "true it is what the old saw says, 'Well done is often ill paid'; and now, too, I see the truth of another saying, 'The worst foes are those of one's own house.'" That was what the fox said as he ran off, and saw the red fox hounds at his heels.

The Two Rules, and How they Work.

"Here are two rules for you, Fred," said Giles Warner, looking up from the paper he was reading, and addressing a younger brother, who was sitting by the stove, playing with a favorite dog.

"Well, what are they?—let's have them," said Fred, suspending his sport with the dog.

"The first is, Never get vexed with anything you can help. The second is, Never get vexed at anything you can't help."

"Are not these rules as applicable to you as to me?" inquired Fred, archly.

"No doubt of that," replied Giles, good-humoredly; "but then it is so much easier to hand over a piece of good advice to another than to keep it for one's own personal use.—It is a kind of generosity that don't require any self-denial." Fred laughed.

"But what say you," continued Giles, "to these rules? How would it work if we should adopt them?"

"I think they take a pretty wide and clean sweep," said Fred. "They don't leave a fellow any chance at all to get vexed."

"That might be an objection to them?" said Giles, "if any one was wiser, better, or happier for getting vexed. I think they are sensible rules. It is foolish to vex ourselves about anything that can be helped, and it is useless to vex ourselves about what can't be helped. Let us assist each other to remember and obey these two simple rules. What say you?"

"I'll agree to it," said Fred, who was usually ready to agree to any thing his brother said if it was only proposed good-humoredly.

"That's too bad!" exclaimed Fred the next morning, while making preparations for school.

"What is the matter?" inquired Giles.

"I have broken my shoe-string, and it is vexatious; I'm in such a hurry."

"It is vexatious, no doubt," replied Giles, "but you must not get vexed; for this is one of the things that can be helped. You can find a string in the left corner of the upper drawer of mother's bureau."

"But we shall be late at school," said Fred.

"No, we shan't," said Giles. "We shall only have to walk a little faster. Besides, if you keep cool, you will find the string, and put it in much sooner than you can if you become vexed and worried."

"That's true," said Fred, as he started for the string, quite restored to good humor.

Several opportunities occurred during the day for putting in practice the newly-adopted rules. The last was this:

In the evening, Giles broke the blade of his knife, while whittling a hard piece of wood.

"It can't be helped," said Fred, "so you must not get vexed about it."

"It might have been helped," said Giles, "but I can do better than to fret about it. I can learn a lesson of care for the future, which may some day save a knife more valuable than this. The rules work well. Let's try them to-morrow."

The next morning Fred devoted an hour before school to writing a composition. After he had written half a dozen lines, his mother called him off to do something for her. During his absence, his sister Lucy made use of his pen and ink to write her name in a school book. In doing this, she carelessly let fall a drop of ink on the page he was writing.—Fred returned while she was busily employed in doing what she could to repair the mischief.

"You have made a great blot on my composition," he exclaimed looking over her shoulder.

"I am very sorry. I did not mean to do it," said Lucy.

Fred was so vexed that he would have answered his sister very roughly if Giles had not interposed.

"Take care, Fred; you know the thing is done, and can't be helped."

Fred tried hard to suppress his vexation.—"I know it was an accident," he said pleasantly, after a brief struggle with himself.

Lucy left the room, and Fred sat down again to his composition. After a moment, he looked up. "No great harm has been

done, after all," he said. "Two or three alterations are much needed, and if I write it over again, I can make them."

"So much for a cool head and not getting vexed," said Giles, laughing. "Our rules work well."

At night, Fred tore his pants while climbing over a fence. "That's too bad," said he.

"It can't be helped," said Giles; "they can be mended."

"The way to help it is what troubles me," said Fred. "I don't like to ask mother, she has so much to do."

Giles proposed that Fred should get over his difficulty by asking Lucy to do the job for him, as her mother had learned her to mend very neatly. Fred was not at first disposed to adopt this measure. He knew that Lucy disliked mending very much, and was afraid she would be cross, if asked to do it; but he at last decided to run the risk of that. They found Lucy busily employed with a piece of embroidery, and quite absorbed with her work. Fred looked significantly at Giles when he saw how his sister was occupied; but he concluded he had gone too far to retreat, and must make a bold push.

"I wish to ask a great favor of you, Lucy," said Fred; "but I fear I have come in the wrong time."

"What do you want?" asked Lucy.

"I am almost afraid to tell you. It's too bad to ask you to do what I know you dislike."

"You are a good while at getting to what is wanted," said Lucy, laughing. "Come, out with it."

Fred, thus encouraged, held up his foot and displayed the rent.

"Well, take them off, I will do my best," said Lucy, cheerfully.

"You are a dear, good sister," said Fred. "When I saw what you was about, I thought you would not be willing to do it."

"My uncommon amiability quite puzzles you, does it?" said Lucy, laughing. "I shall have to let you into the secret. To tell the truth, I have been thinking all day what I could do for you in return for your not getting vexed with me for blotting your composition. So now you have it."

So much for our rules," exclaimed Giles triumphantly. "They work to a charm."

"What rules?" inquired Lucy.

"We must tell Lucy all about it," said Giles. They did tell her all about it, and the result was, that she agreed to join them in trying the new rules."—*Merry's Museum.*

Right and Left-Handedness.

The question has been much discussed among anatomists, whether the properties of the right hand, in comparison with those of the left, depend on the course of the arteries to it. It is affirmed that the trunk of the artery going to the right arm passes off from the heart, so as to admit the blood directly and more forcibly into the small vessels of the arm. This is assigning a cause which is unequal to the effect, and presenting altogether too confined a view of the subject; it is a participation in the common error of seeking in the mechanism the cause of phenomena which have a deeper source.

For the convenience of life, and to make us prompt and dexterous, it is pretty evident that there ought to be no hesitation which hand is to be used, or which foot is to be put forward; nor is there, in fact any such indecision. Is this taught, or have we this readiness given to us by nature? It must be observed, at the same time, that there is a distinction in the whole right side of the body, and that the left side is not only the weaker, in regard to muscular strength, but also in its vital or constitutional properties. The development of the organs of action and motion is greatest upon the right side, as may at any time be ascertained by measurement, or the testimony of the tailor or shoemaker; certainly, this superiority may be said to result from the more frequent exertion of the right hand; but the peculiarity extends to the constitution also, and disease attacks the left extremities more frequently than the right. In opera-dances, we may see that the most difficult feats are performed by the right foot. But their preparatory exercises better evince the natural weakness of the left limb, since these performers are made to give double practice to this limb, in order to avoid awkwardness in the public exhibition; for if these exercises be neglected, an ungraceful performance will be given to the right side. In walking behind a person, it is very seldom that we see an equalized motion of the body; and if we look to the left foot, we shall find that the tread is not so firm upon it, that the toe is not so much turned out as in the right, and that a greater push is made with it. From the peculiar form of

woman, and the elasticity of her step resulting more from the motion of the ankle than of the haunches, the defect of the left foot, when it exists, is more apparent in her gait. No boy hops upon his left foot unless he be left-handed. The horseman puts his left foot in the stirrup, and springs from the right.

We think that we may conclude that everything being adapted, in the convenience of life, to the right hand—as, for example, the direction of the worm of the screw, or of the cutting end of the auger—is not arbitrary, but is related to a natural endowment of the body. He who is left-handed is most sensible to the advantages of this adaptation, from the opening of a parlor door to the opening of a penknife. On the whole, the preference of the right hand is not the effect of habit, but is a natural provision, and is bestowed for a very obvious purpose; and the property does not depend on the peculiar distribution of the arteries of the arm, but the preference is given to the right foot as well as to the right hand.—*Sir Charles Bell's Bridgewater Treatise.*

Household Varieties.

How to Pronounce "Ough."—The ending syllable "ough," which is such a terror to foreigners, is shown up in its several pronunciations in the following lines:

Wife, make me some dumplings of dough;
They're better than meat for my cough;
Pray, let them be boiled till hot through,
But not till they're heavy or tough.

Now, I must be off to my plough,
And the boys (when they've had enough)
Must keep the fire off with a bough,
While the old mare drinks at the trough.

Loved and Gone.—What little things serve to remind us of the loved and lost! A vacant chair; a pair of little shoes; a single stocking, or a child's plaything, have stories, all of them, and make the heart grow soft with sorrow. A mother, whose little boy is dead, says: "Out of door the children are being happy with their sleds, and how they rejoice that winter is here! In the wood shed hangs my little boy's sled; though he will not need it any more. I thought, as I looked at it, how he was wishing for the snow; and now it has come he has gone." Sacred is the little sled now. Every time she looks at it she thinks of her boy. It is a reminder of the little one that died, hanging up by a string, just as he left it; it is something left behind to keep his memory green. A strange pleasure, that she was blessed with his presence once, and sorrow that he has gone, mingle together while she looks at it; the past is a dream, and the present a sad reality; but the future is bright with hope.

Newspapers in the Family.—Show us an intelligent family of boys and girls, and we will show you a family where newspapers and periodicals are plentiful. Nobody who has been without these silent private tutors can know their educating power for good or evil. Have you never thought of the innumerable topics of discussion which they suggest at the breakfast table, the important public measures with which, thus early, our children become familiarly acquainted—great philanthropic questions of the day, to which unconsciously their attention is awakened, and the general spirit of intelligence which is evoked by these quiet visitors? Anything that makes home pleasant, cheerful and chatty, things the haunts of age and the thousand and one avenues of temptation, should certainly be regarded, when we consider its influence on the minds of the young, as a great moral and social blessing.—*Emerson.*

Our Children.—Our children are to fill our places in society—in church and state, and the manner in which they will fill them depends upon the manner in which we educate them. If we train them in the Sabbath-school, for God and his church, they will amply repay us for all our care; but if they are trained up for the world—in the street—in the gambling and tipping saloon—in Sabbath-breaking, profanity, licentiousness and intemperance—in idleness—in sin, they will dishonor our names, and repay us by-and-by with a vengeance!

A man is the healthiest and happiest when he thinks the least of health or happiness. To forget an ill is half the battle; it leaves easy work for the doctors.

MELANCHOLY is another name for tough meat. We care not how imaginative a man may be, let him eat two pickled pigs feet, and he will feel as inanimate as a sack of coals. What we often think is mind, is half the time gristle.

Household Recipes.

Two Ways of Curing Hams.
A correspondent of the Cincinnati Gazette says, "To a cask of hams, say from 25 to 30, after having packed them closely and sprinkled them lightly with salt, I let them lie thus for three or four days; then make a brine sufficient to cover them, by putting salt into clear water, making it strong enough to bear up a sound egg or potato. I then add 1 lb saltpetre, and a gallon of molasses; let them lie in this brine for six weeks—they are then exactly right. I then take them up and let them drain; then, while damp, rub the fleshy side and the end of the leg with finely pulverized black, red or Cayenne pepper; let it be as fine as dust; dust every part of the fleshy side, then hang them and smoke. You may leave them hanging in the smoke-house or other cool place where the rats cannot reach them, and they are perfectly safe from all insects, and will be a dish fit for a Prince, or an American citizen, which is better."

The following recipe for curing hams, from England, and pronounced by those who have tried it to be unequalled: For hams, take 2 ounces of saltpetre, 2 quarts of molasses, 1 lb of pepper, and about 8 pints of fine salt. If the hams have been pickled the salt will not be needed; pound the saltpetre and then put the ingredients together, rub the hams thoroughly with the pickle, turning them every day. Let them remain in the pickle two weeks, then take them out, smoke them a week or more to suit the fancy.

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We will, during this year, as heretofore, constantly labor to improve the quality of the instructive entertainment afforded by The Weekly Tribune, which we intend, shall continue to be the best Family Weekly Newspaper published in the world. We consider the Cattle market reports alone richly worth to cattle raisers a year's subscription price.

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THE MARKETS.

Flour and Meal.

The utter stagnation that followed the close of navigation is just beginning to clear away, and, aided by the pork trade, the week closes with a fair business activity. Grain dealers and speculators, now that shipping has ceased, have turned their attention to the laying in of stock to sell in the spring, when high prices as usual are expected to prevail. Consequently, there is to-day a better market for all grains than at the close of last week. Prices are not materially higher, but the demand is better, which amounts to the same thing. Flour alone is without improvement. The roads during the week have been in good condition, and immense quantities of produce are coming in by wagons, chiefly dressed meats, however.

Flour—Held firmly, but without much activity at \$4.75 a bushel for red wheat brands, and \$4.65 12½ for white. Buckwheat flour is worth \$3.25 per cwt.

Mill feed—Scarce and in good demand at \$16 per ton for bran, and \$18.25 for middlings. No trade in corn meal.

Wheat—Receipts very light and trade confined to the milling demand. The sales of the week have been at \$1.10 a bushel for fair to prime red, and \$1.05 a bushel for white. There is a steady demand at these figures.

Corn—Quiet, but firm at 50¢ a bushel, our last week's quotations. Trade moderate.

Oats—In active demand at 36¢. Considerable quantities have been sold at this figure for shipping for the week.

Rye—Almost nominal at 65¢ per bushel. Barley—Maltsters are steadily prosecuting their business, buying only as fast as they use. The price of good barley is steady at the average of \$1.37½ per cwt.

Beans—Common are dull at any price. Prime navy are quoted at 75¢ per bushel.

Apples—Worth \$2 per barrel and plenty. Dried sell \$1.50 per bushel.

Potatoes—Dull, but steady at 25¢ a bushel for all varieties.

Provisions.

It is now generally conceded that the hog crop this year will be a short one, and henceforth throughout the season the present high prices may be expected to continue. This at least is the feeling both at Cincinnati and Chicago, where the markets are, and have been, excited and buoyant. Here in Detroit the hog market has been very steady, neither advancing nor declining with the rapidity it has elsewhere. During the past week, there have been numerous buyers for the east, and these coming in competition with packers have kept the market in a healthy state of excitement. The receipts have been quite large, numbering say 1,500 head per day. Of these two-thirds have arrived by wagon. The hogs offered are not generally as heavy as could be wished, and the fact of there being so large a proportion of light ones, has induced buyers to take those of weights that they would refuse under other circumstances. The market has ruled firm, and in sellers' favor all the week, and closes buoyant at \$5.75 a bushel for hogs weighing 200 lbs. and \$6 for those averaging 250 lbs and upwards. Nothing below \$5.00, and on some occasions competition has even caused \$5.25 to be paid for choice lots. Mess pork—Firm at \$16, with an upward tendency. Lard—Steady at 11¢ a bushel, or 11½¢ in kegs. Beef—Packed beef is nominal (at former quotations) \$5.50.

Tallow—Steady at 10¢. Hides—Green 4½¢, dry 10½¢; sheep pelts \$1.25 each—market active. Butter—Steady at 14½¢ for firkin and roll. Eggs—Scarce and firm at 16¢.

Live Stock, &c.

Market quiet and unchanged. Cattle are in moderate demand for city trade at \$3.25 per cwt. The latter is the outside figure for very fine. Hogs are in active demand and readily bring \$4.00 a bushel gross weight. That is for fat hogs. Sheep are very quiet and trade light—Quotations entirely unchanged.

ALBANY CATTLE MARKET, DEC. 12.
Judging from the sales made thus far, prices are about as good as last week—perhaps a shade better on one or two of the lower grades. We make but little alteration in our quotations:

Extra First quality..... 5 05½
Second do..... 4 05½
Third do..... 3 05½
Inferior..... 2 05½
Sheep—About 4,000 head have changed hands at prices varying from \$3.75 to \$5.75.
One drover sold some 70 head to an eastern buyer at \$7 per head, about 5½¢ per lb. This was a very fine bunch, averaging 155 lbs.

Hogs—Owing to the favorable weather, the demand is active, but transactions are somewhat retarded because of the fact that some of the drovers, as soon as their hogs were put in the pens, commenced feeding or "stuffing" them. During the day about 200 head changed hands at 5½¢ a bushel—averaging about 200 lbs. One lot, a little heavier, brought \$5.50 per 100 lbs. A few shoats sold for 4½¢ per lb.

NEW YORK LIVE STOCK MARKET.

Demand for beef cattle unusually active at full prices, early in the week.
First quality..... 9 05½
Ordinary..... 8 05½
Common..... 7 05½
Receipts..... 7,000

The market was very active up to the night of Wednesday the 14th. The Tribune of Thursday remarks that during that night several droves arrived, and the numbers continued to increase up to noon of the next day, at which time the stock numbered over a thousand more than last week. It says of Thursday:

"The market to-day is so broken down that butchers can buy good bullocks at 95¢ per head less than yesterday, and upon better terms, taking quality and price and estimated weight into account, than they have been able to do in many weeks. To add to the trouble, a smart snow storm set in about 10 o'clock, and as there were very few buyers in the yards, most of the salesmen crowded into the hotels and restaurants, and took to eating, drinking and smoking, for consolation."

"As the day wore on, the weather became more favorable, but it seemed impossible for the salesmen to find buyers at any reasonable price for all the cattle. Apparently several hundred must be left over unsold, unless owners submit to great losses."

Swine—Steady demand at prices ranging from 5½¢—Receipts 5,000.

Wool.

The state of the wool market promises well for the next clip, and prices are expected to rise high. During the week a city buyer has taken 9,000 lbs. of wool at 45¢, and we hear of an offer at 48¢ for another lot of fleece which was refused.

BEE-HIVES!

IN 1854 I published in the "Farmer's Companion," an account of the new and important invention of Rev. L. Langstroth, of what he termed a "movable-comb Bee-Hive." The subject of bee culture had always been one of no small importance in my view, and for the last ten years I have watched with great interest the progress of Bee-culture both in Germany and this country. Since the announcement of Mr. Langstroth's invention I have been watching it closely, until I am well satisfied, from a full trial, that it is the most important step ever made in bee-keeping. And after ascertaining that it was no humbug, but that it was truly a great improvement on the old mode of keeping bees, I purchased the right and title to Branch and St. Joseph counties, Mich., and now offer individual rights in those counties. If after a fair trial the hive does not prove satisfactory, I agree to return the price paid and take the hive back; thus avoiding all risk on the part of the purchaser. All other movable frame hives are infringements on the Langstroth Patent, and preparations are now being made to prosecute all such impositions on the public. Address me at Burr Oak. [47-3m] CHAS. BETTS.

WOOL! WOOL!!

30,000 POUNDS OF WOOL WANTED

AT OSBORN'S FACTORY in exchange for good substantial cloth such as DOESKIN, CASSIMERE, BLACK, BROWN and GRAY CASSIMERE, SATINETT, TWEEDS, WHITE and RED FLANNEL, also STOCKING YARN, all of which were made expressly for durability. All work warranted well done and done to order. All wool sent to Ann Arbor by Rail Road will be promptly attended to. For further particulars please address at Ann Arbor, 25-6m H. OSBORN & CO.

PEAR SEED! PEAR SEED!!

FRESH AND OF SUPERIOR QUALITY.

American Grown Seed at \$3.50 per lb. Imported Seed at \$2.00 per lb. And at reduced rates to Nurserymen and others ordering large quantities.

Also,
FRESH APPLE SEED, 40 cts per quart, \$7.00 per bushel.
BLACK MAIZE, 50 cts per quart, \$5.00 per bushel.
APRICOT PITS, 75 cts per quart, \$7.50 per bushel.
STRAWBERRY SEED (12 varieties) \$2 per oz.
QUINCE SEED, 40 cts per quart.
WINTER PINE SEED, \$3 per bushel.
HONEY LOCUST do 75 cts per bushel.
YELLOW do 75 cts per bushel.
BAHAM FIB SEED, \$3 per bushel.
Together with the choicest and most extensive collection of Garden, Field, Flower, Tree and Shrub Seeds in the Union.

Our NEW CATALOGUE OF VEGETABLE & AGRICULTURAL SEEDS will be ready by the 1st of January. We will also publish a preliminary TREE AND SHRUB SEED CATALOGUE on or about the 15th of December. We are prepared to supply the trade with seeds of the finest strains in large quantities, at very low rates.

J. M. THORNBURN & CO.,
Growers and Importers of Seeds,
15 John St., New York.
N. B.—Just harvested, a limited supply of genuine Broad Leaf Connecticut Tobacco Seed, at 25¢ per ounce.

WALLACE'S WOOLLEN FACTORY.

BATTLE CREEK, MICH.

THE SUBSCRIBER continues to manufacture wool into CLOTH, CASSIMERE, TWEEDS and FLANNEL for farmers, either on shares or by the yard. Terms as reasonable as any other good establishment in the State. Goods warranted perfect, hand twisted, and durable, free from cotton, old rags or flocks. Farmers if you want a good article of cloth, send on your wool; it may be sent by railroad, with directions, and shall be promptly returned, and warranted to give satisfaction or all damages paid.

A large stock and good variety of cloths, stockings, yarn, &c., always on hand.

He will pay the highest market price in cash, or cloth at wholesale prices, for any quantity of wool delivered at his factory.

Wool carding and cloth dressing done in the best manner on short notice.
BATTLE CREEK, MICH., 1859. 25-6m

D. APPLETON & CO.,

346 AND 348 BROADWAY, N. Y.

Have Just Published,

NEW AMERICAN CYCLOPEDIA:

A Popular Dictionary of General Knowledge,

EDITED BY

GEORGE RIPLEY AND CHARLES A. DANA,

Assisted by a numerous and Select Corps of Writers.

The object of

THE NEW AMERICAN CYCLOPEDIA

is to exhibit, in a new condensed form, the present state of human knowledge on every subject of rational inquiry.

It is a dictionary of general knowledge, containing, in a condensed form, the most important facts of human history, literature, science, art, religion, politics, commerce, mathematics, geography, manufactures, astronomy, law, history, chemistry, mechanics, trade, &c.

With this design, the numerous Encyclopedias, Dictionaries of special branches of study, and popular conversations, Lexicons, in the English, French and German languages, have, of course, been diligently consulted and compared. The NEW AMERICAN CYCLOPEDIA is not founded on any European model; in its plan and elaboration it is strictly original. Many of the writers employed on this work have enriched it with their personal researches, observations and discoveries.

It is a dictionary of general knowledge, containing, in a condensed form, the most important facts of human history, literature, science, art, religion, politics, commerce, mathematics, geography, manufactures, astronomy, law, history, chemistry, mechanics, trade, &c.

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1859. WINTER ARRANGEMENT. 1860.

MICHIGAN SOUTHERN AND

DETROIT, MONROE and TOLEDO
RAIL ROAD.

MONROE, CHICAGO, TOLEDO, CINCINNATI AND CLEVELAND LINE.

With its connections, forms a Through Route from Detroit to Monroe, Adrian, Chicago, Toledo, Sandusky, Cleveland, Dayton, Hamilton, Cincinnati, Pittsburgh, Wheeling, Harrisburg, Philadelphia, Baltimore, Washington, Erie, Dunkirk, Buffalo, Albany, New York, Boston, Montreal, Quebec, Portland, Rouse's Point, and all points interior, in Ohio, Pennsylvania, New York, and the New England States, and all points West and South-West.

ON and after Monday, November 14th, 1859, Passenger Trains will run as follows:

FROM DETROIT, Mail and Express, daily except Sundays, at 9:30 A. M., arriving in Chicago at 10:30 P. M., and Toledo at 12:37 P. M.

Montréal and Chicago Express, daily at 9:30 P. M., arriving in Chicago at 10:30 A. M., and Toledo at 12:15 A. M.

FROM CHICAGO, Mail and Express, daily except Sundays, at 6:00 A. M., arriving in Detroit at 6:00 P. M., and Toledo at 8:00 P. M.

FROM TOLEDO, Mail and Express, daily except Sundays, at 8:00 P. M., arriving at Detroit at 6:00 P. M., and Chicago at 10:00 P. M.

Trains from Detroit connect at Adrian with Michigan Southern Railroad, and with New Albany and Salem Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

Connect at Toledo with Dayton and Michigan Road, for Dayton, Hamilton and Cincinnati; with the Cleveland and Toledo Road, for Sandusky, Cleveland, Pittsburgh, Dunkirk, Buffalo, Albany, Boston and New York; with Washburn Valley Road for Fort Wayne, and points Southwest, and with Air Line Road for Bryan, Kendallville, Logansport, and Gibson.

Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Sarnia, Toronto, Prescott, Montréal, Québec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, and with Detroit and Milwaukee Railway for Grand Rapids, Grand Haven and Intermediate Stations.

FREIGHT TRAINS leave Detroit daily except Sundays at 5:00 A. M., arriving in Toledo at 11:10 A. M., and Chicago via Adrian at 10 next morning.

Leave Chicago daily except Sundays, at 8:15 A. M., and 3:00 P. M., arriving in Detroit at 9:00 P. M.

Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

Woodruff's Patent Sleeping Cars accompany all night trains on this route.

Time and Fare the same as by any other Rail Road route.

No change of cars between Detroit and Chicago. Baggage checked through to all points East & West.

J. P. KNIGHT, Agent, Detroit.

GENERAL SUPPLY, Toledo, Ohio.

L. P. KNIGHT, Agent, Detroit.

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THE GREAT WONDER OF THE NINETEENTH CENTURY, PROFESSOR WOOD'S HAIR RESTORATIVE.

Says the St. Louis (Mo.) Democrat: Below, we publish a letter to Dr. Wood, of this city, from a gentleman in Maine, which speaks glowingly of the superior merits of his hair tonic. Such evidence must have its effect, when coming from a reliable source. If certificates are guarantees of truth, the Dr. needs no encomiums, nor useless puffery from the press:

BATH, MAINE, Jan. 20, 1856.

Professor O. J. Wood & Co.

GENTLEMEN: Having my attention called a few months since to the highly beneficial effects of your hair restorative, I was induced to make application of it upon my own hair, which had become quite gray, probably some three months since I procured a bottle of your hair restorative and used it. I soon found it was proving what I had wished. I used it about twice a week. I have since procured another bottle, of which I have used some. I can now certify to the world that the gray or white hair has totally disappeared, both on my head and face, and my hair has resumed its natural color, and I believe more soft and glossy than it has been before for twenty-five years. I am now sixty years old; my good wife at the age of fifty-two, has used with the same effect.

The above notice I deem due to you for your valuable discovery. I am assured that whoever will rightly use, as per directions, will not have occasion to contradict my statements. I am a citizen of this city and a resident here for the last fifteen years, and am known to nearly every one here and adjoining towns. Any use you may make of the above, with my name attached is at your service, as I wish to preserve the beauties of nature in others as well as myself. I am, truly, yours,

A. C. RAYMOND.

BALTIMORE, Jan. 23, 1858.

WOOD'S HAIR RESTORATIVE.

Professor Wood—Dear Sir: Having had the misfortune to lose the best portion of my hair, from the effects of yellow fever, in New Orleans in 1854, I was induced to make a trial of your preparation, and found it to answer as the very thing needed. My hair is now thick and glossy, and no words can express my obligations to you in giving to the afflicted such a treasure.

FINLEY JOHNSON.

The undersigned, Rev. J. K. Bragg, is a member in regular standing, and pastor of the Orthodox Church at Brookfield, Mass. He is a gentleman of great influence and universally beloved.

Brookfield, January 12, 1858.

Professor Wood—Dear Sir: Having made trial of your Hair Restorative, it gives me pleasure to say, that its effect has been excellent in removing inflammation, dandruff and a constant tendency to itching with which I have been troubled from my childhood; and has also restored my hair, which was becoming gray, to its original color. I have used no other article with anything like pleasure or profit.

Yours truly,

J. K. BRAGG.

The Restorative is put up in bottles of 3 sizes, viz: large, medium, and small; the small holds ¼ a pint, and retails for one dollar per bottle; the medium holds at least twenty per cent. more in proportion than the small, retails for two dollars per bottle; the large holds a quart, forty per cent. more in proportion, and retails \$3.

O. J. WOOD & CO., Proprietors, 312 Broadway, New York. (In the great N. Y. Wire Railing Establishment.)

And sold by all good Druggists and Fancy Goods Dealers.

45-3m